

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30				1. REQUISITION NUMBER	PAGE 1 OF 131
2. CONTRACT NO.	3. AWARD/EFFECTIVE DATE	4. ORDER NUMBER	5. SOLICITATION NUMBER HSCG38-08-R-410025		6. SOLICITATION ISSUE DATE 6/25/2008
7. FOR SOLICITATION INFORMATION CALL:		a. NAME Judi Knotts		b. TELEPHONE NUMBER (No collect Calls) 252 335 6145	8. OFFER DUE DATE/ LOCAL TIME 7/21/2008 3pm
9. ISSUED BY U. S. Coast Guard Aircraft Repair and Supply Center (ALD) Elizabeth City, NC 27909		CODE Z50100	10. THIS ACQUISITION IS <input type="checkbox"/> UNRESTRICTED <input checked="" type="checkbox"/> SET ASIDE:      %FOR <input checked="" type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> HUBZONE SMALL BUSINESS <input type="checkbox"/> 8(A) NAICS: 333319 SIZE STANDARD: 500		11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE  <input checked="" type="checkbox"/> 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) 13b. RATING DO-AL 14. METHOD OF SOLICITATION <input type="checkbox"/> RFQ <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP
15. DELIVER TO USCG Aviation Training Center 8501 Tanner Williams Road Mobile, AL 36608-8322		CODE Z65100	16. ADMINISTERED BY See Block 9		
17a. CONTRACTOR/ OFFEROR CODE      FACILITY CODE		18a. PAYMENT WILL BE MADE BY Chief, Financial Center 1430A Kristina Way Chesapeake, VA 23706			
TELEPHONE NO.		18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM			
<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER					
19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES		21. QUANTITY	22. UNIT	23. UNIT PRICE
	Contractor shall provide Integrated Maintenance, Operation and Modification Support as per attached Statement of Work.				0.00
	Attached Addenda and Attachment Applicable.				0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
(Use Reverse and/or Attach Additional Sheets as Necessary)					
25. ACCOUNTING AND APPROPRIATION DATA				26. TOTAL AWARD AMOUNT (For Govt. Use Only)	
<input checked="" type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4. FAR 52.212-3 AND 52.212-5 ARE ATTACHED. ADDENDA				<input checked="" type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED	
<input checked="" type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA				<input checked="" type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED	
28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 1 COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.			29. AWARD OF CONTRACT: REF.      OFFER DATED      . YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:		
30a. SIGNATURE OF OFFEROR/CONTRACTOR			31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)		
30b. NAME AND TITLE OF SIGNER (Type or print)		30c. DATE SIGNED	31b. NAME OF CONTRACTING OFFICER (Type or print)		31c. DATE SIGNED

## ADDENDUM 1

## SCHEDULE OF SERVICES

BASE PERIOD: Aug 1, 2008 - July 31, 2009

CLIN	DESCRIPTION	QTY	UNIT	UNIT PRICE Not to Exceed	TOTAL AMOUNT
0001	Mobilization for Contractor Operation and Maintenance Services with Supply Support IAW the Statement of Work.	1	MO	_____	_____
0002	On site maintenance and Modification tasking for ATC training devices IAW Statement of Work , Section 5	11	MO	Not to Exceed _____ See instructions Addendum 3, 52.212-2 (b)	_____
0003	Data in accordance with DD Forms 1423, Technical Exhibit (9)-1, Contract DATA Requirement List	1	JOB	Not Separately Priced	
0004	Government Furnished Property Report IAW CDRL C0002	1	EA	Not Separately Priced	
0005	Travel (Not to Exceed Cost) In Support of CLIN 0002	_____	EA	_____(NTE)_____	
0006	Premium Time Support For CLIN 0002 at USCG Aviation Training Center, Mobile, AL IAW Addendum 4 (6.0)	_____	HR	TBD  Do not quote.	
0007	Additional IMOMS Project support IAW paragraph 5.5.2.3	_____	EA	TBD Do not quote.	
0008	Shipping/Document Transaction Cost	12	MO	NTE ,	\$2,000.00
0009	RESERVED				
0010	RESERVED				

## ADDENDUM 1

## SCHEDULE OF SERVICES

OPTION YEAR ONE: Aug 1, 2009 - July 31, 2010

CLIN	DESCRIPTION	QTY	UNIT	UNIT PRICE Not to Exceed	TOTAL AMOUNT
0011	On site maintenance and Modification tasking for ATC training devices IAW Statement of Work , Section 5	12 See instructions addendum 3, 52.212-2 (b) (c)	MO		
0012	Data in accordance with DD Forms 1423, Technical Exhibit (9)-1, Contract DATA Requirement List	1	JOB	Not Separately Priced	
0013	Government Furnished Property Report IAW CDRL C0002	1	EA	Not Separately Priced	
0014	Travel (Not to Exceed Cost) In Support of CLIN 0011	—	EA	—(NTE) —	
0015	Premium Time Support For CLIN 0011 at USCG Aviation Training Center, Mobile, AL IAW IAW Addendum 4 (6.0)	— Do not quote.	HR	TBD	
0016	Additional IMOMS Project support IAW paragraph 5.5.2.3	— Do not quote.	EA	TBD	
0017	Shipping/Document Transaction Cost	12	MO	NTE	\$2,000.00
0018	RESERVED				
0019	RESERVED				

## ADDENDUM 1

## SCHEDULE OF SERVICES

BASE OPTION YEAR 2: Aug 1, 2010 - July 31, 2011

CLIN	DESCRIPTION	QTY	UNIT	UNIT PRICE Not to Exceed	TOTAL AMOUNT
0020	On site maintenance and Modification tasking for ATC training devices IAW Statement of Work , Section 5	12	MO	_____	_____
		See instructions Addendum 3, 52.212-(b)(c)			
0021	Data in accordance with DD Forms 1423, Technical Exhibit (9)-1, Contract DATA Requirement List	1	JOB	Not Separately Priced	
0022	Government Furnished Property Report IAW CDRL C0002	1	EA	Not Separately Priced	
0023	Travel (Not to Exceed Cost) In Support of CLIN 0020	_____	EA	_____(NTE)_____	
0024	Premium Time Support For CLIN 0020 at USCG Aviation Training Center, Mobile, AL IAW Addendum 4 (6.0)	_____	HR	TBD	
		Do not quote.			
0025	Additional IMOMS Project support	_____	EA	TBD	
		Do not quote.			
0026	Shipping/Document Transaction Cost	12	MO	NTE	\$2,000.00
0027	RESERVED				
0028	RESERVED				

**STATEMENT OF WORK**  
**FOR**  
**INTEGRATED MODIFICATION OPERATION AND MAINTENANCE SUPPORT**  
**(IMOMS)**  
**FOR FLIGHT TRAINING DEVICES LOCATED AT**  
**USCG AVIATION TRAINING CENTER (ATC)**  
**8501 TANNER WILLIAMS ROAD**  
**MOBILE, AL 36608-8322**

**Submitted by:**

**Christian Broxterman**  
**Chief, Flight Training Systems Branch**

**15 June 2008**

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## SECTION 1: GENERAL

1.1 Scope. This Statement of Work (SOW) describes the requirements for Integrated Modification, Operation and Maintenance Support (IMOMS) of Operational Flight Trainers (OFTs) located at the United States Coast Guard (USCG) Aviation Training Center (ATC), Mobile, Alabama.

1.1.1 Background. ATC Mobile currently utilizes three operational flight trainers (OFT) and two cockpit procedure trainers (CPT) with associated part-task trainers and computer aided debrief stations in order to cycle over 700 students through Aviator Transition, Re-Qualification, and Proficiency Courses, annually. These training devices require maintenance, operation, and modification support that is outside the scope of a typical Contractor Operation and Maintenance Support (COMS) Contract. By integrating these needed functions into one Time and Materials (T&M) effort the Government will benefit by reducing the overall costs and time required to keep two separate contracts/contractors in place.

1.2 Personnel. The Contractor shall provide all necessary personnel to perform the tasks delineated in this SOW. As the only USCG site with flight training systems capable of supporting requisite training objectives, daily flight training systems (FTS) performance is critical to a steady pipeline of mission ready aviators necessary to meet USCG national security responsibilities. Hence, the Government requires experienced Site Personnel who are multi-disciplined and cross-trained to provide maintenance, operation and modification services for on-site training devices. With Government concurrence, equivalent simulator/education experience for personnel outlined below may be substituted provided it is comparable to the specific requirements listed. Personnel changes due to specific modification efforts/experience may be made upon prior approval of the Government.

1.2.1 Key Personnel. For the purpose of this contract, the Site Manager and all onsite personnel shall be considered key personnel. Resumes for key personnel shall be submitted to the Contracting Officer with a copy to the Contracting Officer Technical Representative (COTR) for review and determination of acceptability at the beginning of the mobilization period and/or when key personnel replacement is required.

1.2.2 Project Manager. The Contractor shall provide a Project Manager who shall be responsible for all work performed under this contract and shall be a single point of contact for the Contracting Officer. The Project Manager may also be the Site Manager and shall meet the same qualifications requirements listed for the Site Manager.

1.2.3 Site Manager. A Site Manager shall be designated for the site and shall have full authority to act for the Contractor on all contract matters relating to daily operation of the site. The site manager shall be available during normal working hours at the site to discuss site-specific issues and participate in progress reviews. To qualify for this position, the contractor shall provide a candidate that meets at least one of the following conditions:

a. The contractor's Site Manager shall possess a Master's Degree in Engineering, Computer Science, or other related field, with a minimum of three (3) years of qualifying

experience in a commercial or military flight simulation environment. Qualification experience shall include hardware and software specific experience on similar training devices listed in this SOW.

b. The contractor's Site Manager shall possess a Bachelor's degree in Engineering, Computer Science, or other related field, with a minimum of five (5) years of qualifying experience of which two (2) years shall be in a commercial or military flight simulation environment. Qualification experience shall include hardware and software specific experience on similar training devices listed in this SOW.

c. The Contractor's Site Manager shall possess at least ten (10) years experience in flight simulation maintenance, design, modification, and management of both hardware and software on training devices similar to those listed in this SOW.

1.2.4 Trainer Operators/Maintenance Personnel. Trainer operators and maintenance personnel shall have and demonstrate knowledge of the trainer operating procedures and performance capabilities to enable exploitation of the full training capability of the device. In order to meet the trainer operation and maintenance requirements specified in this SOW, the Contractor's on-site operation and maintenance personnel shall, as a minimum, have six (6) years simulator operation and maintenance experience of which two (2) years shall be in the operation and maintenance of all major areas, systems and subsystems of like trainers outlined in this SOW. This time must be exclusive of formalized training. Operation and maintenance personnel shall have graduated from a two-year Electronics Technician resident course at an accredited technical institute, or shall have equivalent education experience in a related field. Failure to provide qualified operator(s) for scheduled training shall result in Chargeable Down Time (CDT). For purposes of Department of Labor wage determination, Trainer Operators/Maintenance Personnel shall be considered Engineering Technicians under Occupational Code 30000, Technical Occupations.

1.2.5 Supply Technician. A Supply Technician shall be designated for the site to provide dedicated logistics support related to government owned parts inventory. To qualify for the position, the contractor shall provide a candidate who at least possesses three (3) years of qualifying work experience in logistics management in either the aviation or flight simulation environment. Qualifying experience shall include procurement, inventory control, and supply chain management. The candidate shall be expected to conform and comply with all existing U.S. Coast Guard directives regarding supply procedures and inventory control.

1.2.6 Modification/Engineering Personnel. To qualify for these positions, the contractor shall provide candidates who at least possess a Bachelor's degree in electronics, mechanical, or computer engineering, or related field. The candidate shall possess five (5) years of qualifying work experience of which two (2) years shall be in a commercial or military flight simulation environment. Qualifying experience shall include design, analysis, development, and installation of similar training equipment or related computer equipment. For senior software engineers, qualifying experience shall include being directly responsible for: designing software for a large system (i.e., 30,000 lines of executable code or greater), the coding and integration task on a major design effort, and development or device modification effort.

1.2.7 Other Personnel. Depending on the requirements of a particular modification task, one or more Subject Matter Experts (SME) may be required to accomplish the assigned effort. Resumes for all personnel required to accomplish these efforts shall be submitted to the COTR for approval at least (20) days prior to employment under this contract.

1.2.7.1 Personnel in Training Status. Upon Government approval, personnel in a training status may be substituted to perform tasks that do not require specific qualifications. The tasks to be performed, estimated hours to accomplish, and labor rates to be charged shall be provided to the COTR for approval prior to the initiation of any work.

1.2.7.2 Backup Support Personnel. The Contractor shall maintain a minimum of at least two personnel during all operations and maintenance evolutions. The contractor shall keep the COTR informed concerning the status of all proposed on-site personnel. In the event shortages arise from employees taking leave (sick or personal), seeking other employment, or otherwise being absent, the Contractor shall supplement and provide qualified backup support personnel. Backup support personnel shall have the same qualifications or higher than the absent person they are replacing. The rate charged for backup support personnel shall be no higher than the rate charged for the absent person.

1.2.8 Administration/Supervision. The Contractor shall retain sole administrative and supervisory responsibility for all Contractor personnel. The Site Manager or alternate shall have full authority to act for the Contractor on all contract matters relating to daily operation of this contract. The Site Manager shall have authority over Contractor personnel relative to the performance of modification tasks, as well as operation and maintenance functions rendered under the contract. The Site Manager shall be the focal point for routine day-to-day interface with the Government.

1.2.8.1 Training. The Contractor shall be responsible for providing adequate training to Contractor personnel to enable these personnel to perform the tasks delineated in this SOW. This shall include, as a minimum, initial training during the Mobilization Period, training of replacement personnel, any necessary refresher training, and training required as a result of Government or Contractor change or modification of the trainer. The Government requires experienced Site Personnel who are multi-disciplined and cross-trained to provide modification, operation, and maintenance services on the training devices

1.2.8.2 Appearance and Conduct. The Contractor shall be responsible for the supervision and conduct of all his employees. The Contractor shall ensure that all its employees present a professional appearance at all times, and that their conduct does not discredit the United States Government, the Department of Homeland Security, and/or the U.S. Coast Guard. Contractor personnel shall wear the type of clothing that is worn by their commercial counterparts.

1.2.8.3 Removing Employees From Installation For Misconduct or Security. The Government may, at its sole discretion, direct the contractor to remove any employee from the installation for misconduct or a security infraction. Such removal does not relieve the Contractor of the responsibility to provide sufficient qualified personnel for adequate and timely services.

1.3 Contractor's Quality System. The contractor shall implement and maintain a Quality System that is compliant with the ANSI/ISO/ASQC Q9001-2000 requirements. The ANSI/ISO/ASQC Q9000-2000 and ANSI/ISO/ASQC Q9004-2000 standards may be used for additional guidance. The contractor shall develop and maintain a site tailored Quality System Plan (CDRL B006) that is acceptable to the Government and that assures that all work will conform to contract requirements. The Quality System Plan shall be incorporated into this contract upon Government acceptance.

1.4 Government Quality Assurance. The Government will evaluate the contractor's performance under this contract using the quality assurance procedures listed in Technical Exhibit (10), Performance Requirements Summary (PRS). When an observed defect is other than minor, or when on-the-spot corrective action as to the cause cannot be taken, the Government will use a Contract Deficiency Memorandum (CDR) to advise the contractor of the problem and require contractor response on corrective action.

1.4.1 Inspections.

1.4.1.1 Contractor Participation. The Contractor shall participate in the trainer inspections and shall also maintain the trainer(s) in an operational condition during the inspections. The period of time during which the inspections are conducted will be treated as scheduled training unless otherwise directed by the COTR.

1.4.1.2 Action Items. The Contractor shall document any discrepancies detected during these inspections. These discrepancies shall be recorded on the Government provided Action Item Report/Request (AIR) forms with anticipated correction dates assigned. The Contractor shall provide monthly status information to the COTR relative to the resolution of discrepancies found during the inspections on or before the assigned correction dates.

1.5 Security. The contractor shall safeguard all classified information and meet all Security and Information Assurance requirements under applicable U.S. Coast Guard regulations throughout the life of the contract. A SECRET security clearance is required by all on-site engineers and technicians in order to perform the work under this contract. As a minimum, one technician and one engineer shall possess a Secret clearance 30 days after the Mobilization period. In addition, the contractor shall provide a list to the COTR of the site employees (CDRL B007) and shall update this list whenever Government approved changes occur. The COTR will provide this list to base security as a cross-reference for entry approval.

1.6 Installation Security Requirements. The contractor shall comply with all installation security requirements and all security regulations or directives identified in this work statement or issued by the USCG ATC Commanding Officer. Enrollment in the DoD Contractor Verification System (CVS) shall be required. On-site employees shall submit forms SF-85P and FP-285 to the COTR in order to enroll in CVS and be issued a Contractor Common Access Card (CAC). Contractor personnel shall have a CAC card on their person at all times while on U.S. Coast Guard premises. A CAC is also required for access to the government computer system.

Procedures for obtaining CAC and vehicle stickers shall be addressed during the Mobilization Period.

1.6.1 Identification Of Contractor Employee Vehicles. All contractor employee vehicles shall display a valid state license plate, a valid state safety inspection sticker (if required), and a valid installation vehicle registration decal at all times. Employee owned vehicles shall be parked in designated contractor parking areas or as otherwise directed by the COTR.

1.6.2 Off-limits Facilities. Unless directed by the COTR or escorted by Government personnel, Government office spaces and equipment not specifically designated for Contractor use shall be off-limits to Contractor personnel.

1.6.2.1 Visitation Notification. All contractor visitor access requests shall be coordinated with the COTR.

1.6.3 Key Control. The Contractor shall establish and implement methods to ensure that all keys issued to the contractor are not lost, misplaced or used by unauthorized persons. The contractor shall obtain all required keys from the COTR and shall not duplicate any keys issued by the Coast Guard. The Contractor will promptly return keys issued to personnel no longer employed for the purposes of this contract. Key control procedures shall be included in the contractor's Quality System Plan (CDRL B006).

1.6.3.1 Lost Or Misplaced Keys. The contractor shall report lost or misplaced keys immediately to the COTR during duty hours and to the Officer of the Day (OOD) at extension 6845 during non-duty hours. Additionally, an Action Item Request (AIR) shall be filled out by the contractor and submitted to the COTR for any lost or misplaced keys.

1.6.3.2 Action For Lost Keys. When contractor employees lose keys, the contracting officer may, at his/her discretion, require the contractor to replace locks or re-key the locks in accordance with local Coast Guard procedures at the contractor's expense.

1.6.4 Access To Buildings. The contractor shall obtain access to buildings through the COTR and arrange to open and close the buildings as necessary in the performance of assigned work. Outside access to Contractor assigned spaces shall be kept locked at all times. If a key is issued, the contractor shall make proper arrangements to secure the building during non-working hours.

1.6.4.1 Contractor Occupied Facilities. The contractor is responsible for the security of all Government furnished workspaces, materials, and equipment. The contractor shall admit Government security, fire protection, and medical personnel if appropriate, for purposes of security, fire, safety or sanitary inspections. The contractor shall report any security, fire, safety, or sanitary hazards to the COTR.

1.6.4.2 Admitting Unauthorized Persons. The Contractor shall not permit the entry of unauthorized persons on base at ATC Mobile.

1.6.4.3 Admitting Authorized Persons. The Contractor shall provide a Visit Authorization Request to the COTR for approval prior to visitation of any Contractor personnel or visitors not specified on the Contractor's submitted Employee List. If approved by the COTR, these persons, while on base, shall be subject to installation regulations and the Contractor shall be responsible for their actions.

1.7 Installation Regulations. The Contractor shall become familiar with all installation regulations that affect work performance and conduct under the contract. A copy of these regulations will be provided during the Mobilization Period.

1.8 Safety Requirements. The contractor shall conduct all work in a safe manner and comply with all OSHA and ATC safety regulations and requirements. If the contractor fails or refuses to comply promptly with safety requirements, the Contracting Officer and/or COTR may issue an order stopping all or a part of the work until satisfactory corrective action has been taken.

1.9 Work Hours And Holidays. The Contractor shall have the trainers available for Government training from 0700 to 2300 Monday through Friday unless otherwise directed by the COTR. This training installation is closed for the following holidays: New Years Day, Martin Luther King's Birthday, President's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, and Christmas Day. The contractor shall not perform work on weekends or holidays without prior approval from the COTR.

1.10 Miscellaneous.

1.10.1 Description of Trainer(s). A functional and general description of each FTS device covered under the scope of this contract is provided in Technical Exhibits (1), (2), (3), (4), (5), & (6).

## **SECTION 2: DEFINITIONS**

2.1 Additional Training. Any Government requirement other than make-up training which necessitates operation of the trainer (training, inspections, etc.) at times other than the Contracted Training Time (CTT).

2.2 Aircraft Common Equipment. Unmodified aircraft equipment used in a trainer.

2.3 Chargeable Downtime (CDT). That portion of downtime which is not designated Non-Chargeable Downtime (NCDT, see paragraph 2.14 definition), as determined by the COTR. CDT includes Partial Mission Capability Quantity (PMCQ).

2.4 Contracting Officer's Technical Representative (COTR). The COTR is the on-site Government representative and the single point of technical contact for the Contractor, with primary responsibility for surveillance of Contractor performance. One or more on-site technical representatives may assist the COTR.

2.5 Contractor Support Date (CSD). The date of commencement of Contractor performance responsibility as specified herein. CSD shall coincide with the end of the Mobilization Period.

2.6 Contracted Training Time (CTT). A standard block of time including specified days of the week established for scheduling of training. CTT may be adjusted by the scheduling authority, which may be dictated by operational necessity.

2.7 Discrepancy Report (DR). Any discrepancy that is not considered a hardware maintenance action that fails to pass the Trainer Test Procedures Report (TTPRR) baseline test shall generate a discrepancy report.

2.8 Downtime. That portion of CTT when a qualified operator is not provided when required and/or a trainer is not operationally ready.

2.9 Key Personnel. Key personnel are those personnel whose aggregate technical and professional experience is essential to successfully support the device. For the purpose of this SOW the all-on-site personnel are identified as Key personnel.

2.10 Lost Training. Scheduled training not accomplished due to trainer downtime.

2.11 Make-up Training. Any scheduled Government requirement that necessitates rescheduling due to lost training.

2.12 Material Support Package (MSP). The inventory of supporting materials provided by the Government for an individual training device. The MSP is considered part of the trainer and will be located on site. The MSP will contain Government furnished trainer peculiar tools and support equipment, and publications and technical data. The MSP will be placed in the custody and under the responsibility of the Contractor.

2.13 Mobilization Period. The period whereby the Contractor prepares to assume full responsibility for IMOMS at CSD and is further described in Section 5.2 of the SOW.

2.14 Non-chargeable Downtime. That portion of downtime that the Contractor is not held responsible as determined by the COTR. Non-chargeable downtime may result from one or more of the following conditions:

- a. Facility power outage or other facility problems, when not caused by Contractor negligence.
- b. Fire when not caused by Contractor negligence.
- c. Negligence on the part of Government personnel.
- d. Natural disaster (flood, windstorm, etc.).



- e. Criminal acts by persons not employed by the Contractor.
- f. Delay in supply (or other Government delay) for items of Government responsibility. Downtime designated non-chargeable under this condition will commence upon Government receipt of written documentation or GFE parts request by the Contractor, and will terminate upon requested item delivery to the Contractor by the Government. The Contractor shall pickup the requested item at the designated local base supply point if requested by the COTR. This does not apply if the Contractor fails to maintain spare/repair parts in a Ready-For-Issue (RFI) condition, maintain proper inventory levels, or to order/procure/repair parts in a timely manner. If the requisitioned part does not repair the symptoms, then the downtime period designated as non-chargeable during the requisition period shall be converted to chargeable downtime.
- g. Non-serviceability of equipment and software systems that are solely the responsibility of the Government.
- h. Systems undergoing Government installed modifications.

2.15 No Show. That period of training time scheduled but not used or not canceled by the user activity.

2.16 Partial Mission Capability (PMC). A condition in which degraded operation (less than 100% Operationally Ready) still permits meaningful training or alternative training to be accomplished.

2.17 Partial Mission Capability (PMC) Operation. Operation of a device during a period of time that could be defined as CDT is referred to as PMC Operation. If PMC or alternative training is elected by the instructor or the COTR, the Contractor will be charged only for the percentage of trainer degradation due to factors which would otherwise be CDT. This shall be known as "Partial Mission Capability".

2.18 Partial Mission Capability Time (PMCT). PMCT is that portion of CTT in which the device is used in a degraded PMC status to complete the scheduled training objective; or an alternative training mission. This PMCT status is an elective choice made by the instructor or COTR when it is determined that productive PMCT or alternative training would be in the best interests of the Government. In order for the training device to be placed in a PMCT status, the instructor/COTR must elect to initiate (or continue) training in a degraded mode and the Contractor will be provided access, on a not to interfere with training basis, to all INOPERABLE and related systems/subsystems of the training device to perform necessary malfunction isolation and corrective maintenance. Even though the instructor may elect alternative training, PMCT based on that scheduled training exercise applies during the entire scheduled period of operation. PMCT starts at the beginning of the first training period in which a malfunction is reported and continues for every consecutive mission until it is corrected.

2.19 Partial Mission Capability Factor (PMCF). PMCF is a subjective percent of degradation to the scheduled mission as determined by the Government Qualified Instructor Pilot (IP).

2.20 Partial Mission Capability Quantity (PMCQ). PMCQ is the PMCF multiplied by the PMCT ( $PMCQ = PMCF \times PMCT$ ). PMCQ is used in the computation of trainer availability, with the same effect as CDT.

2.21 Performance Requirements Summary (PRS). Identifies the key service outputs of the contract that will be evaluated by the Government to assure contract performance standards are met by the Contractor. The PRS is included in Technical Exhibit (10) of this SOW.

2.22 Quality Assurance (QA). Those actions taken by the Government to assure services meet the requirements of the SOW.

2.23 Quality Assurance Plan (QAP). An organized written document used for QA. The document contains specific methods to perform surveillance of the Contractor.

2.24 Quality Control (QC). Those actions taken by a Contractor to control the production of goods or services so that they meet the requirements of the SOW.

2.25 Ready-For-Issue (RFI). RFI is a status condition of a part, spare, or other replaceable unit which signifies the part/spare/unit is fully operational and can perform all of its designed functions in the event of failure of an installed part/spare/unit.

2.26 Scheduled Training Time. Scheduled training time includes training time, make-up training time, and additional training time.

2.27 Scheduling Authority. Designated activity or COTR (e.g., Scheduling Officer).

2.28 Support Equipment. Any tools, jigs, stands, or testing gear, etc., used in the operation, maintenance, or repair of any system, subsystem, component, or end item.

2.29 Technical Data Support Package (TDSP). The TDSP consists of all technical documentation, including drawings, identified in each trainer's MSP and listed in each trainer's appendix.

2.30 Trainer Peculiar Equipment. Modified aircraft equipment, modified or unmodified commercial equipment, or equipment manufactured exclusively for the trainer(s).

2.31 Training Event/Period. A training event/period is a discreet activity that will typically consist of an assigned instructor and one or more students. The training event/period will consist of one or more sorties or missions. A training event/period will typically last no more than four hours. The time scheduled for a single training event/period may also be referred to as "block time".

2.32 Training Time. Any Government requirement that necessitates operation of the trainer during contracted training time (training, inspections, software development, Quality Assurance and Revalidation (QA&R), etc.).

2.33 Transition Period. The Transition Period is the time the Contractor continues to perform contracted support while performing actions to turn over the effort to the successor Contractor. The Transition Period for the Contractor will coincide with the Mobilization Period for the successful Offeror. This effort is further described in Part 5.7 of this SOW.

2.34 Weekly Training Schedule. The weekly schedule for trainer use. The Weekly Training Schedule identifies planned or intended use of the trainer(s) in terms of planned operating hours, number of planned training events/periods per day, and the required material condition for individual events/periods or blocks of periods if known. The fundamental purpose of the Weekly Training Schedule is to assist the Contractor in more effectively planning for training, administration, elective maintenance, and modification efforts and shall in no way constrain the Government with regard to changes thereto as may be dictated by operational necessity. Once the weekly training schedule has been provided to the Contractor, adjustments, additions or deletions will normally be passed to the Contractor by phone from the Government scheduling authority or COTR.

### **SECTION 3: GOVERNMENT FURNISHED PROPERTY (GFP)**

3.1 Material Support Package (MSP). The MSP will be provided to the Contractor as GFP. The Government does not warrant the condition of the MSP supplied under the contract. The Contractor shall maintain and update the MSP during the term of the contract.

3.1.1 Tools and Support Equipment. The Government will provide the Contractor with existing tools and support equipment. A preliminary inventory will be provided to the Contractor during Mobilization Phase and the Contractor, in accordance with CDRL C002, shall submit a Mobilization Inventory. The contractor shall establish and implement a tool and special equipment control program in order to maintain accountability and increase maintenance effectiveness. The contractor shall maintain tool boxes workbench drawers, and portable tool boxes, with foam inserts, at Government expense. A tool inventory log shall be maintained by the contractor for each tool box, drawer, and portable tool boxes. A tool inventory will be conducted at least twice daily and also following the completion of each maintenance task performed. Special tools and test equipment will be properly stowed in designated areas following use. The Government will be responsible for the calibration of all Government furnished tools and support equipment. Replacement equipment shall be properly inventoried, documented on the MSP, and become the property of the Government.

3.1.2 Spare Parts. The Contractor shall assume custody of all spare parts (initial spare parts listing will be provided to the Contractor at the beginning of the Mobilization Period) before the conclusion of the Mobilization Period. The Contractor shall maintain custody of spare parts and shall be responsible from CSD through the end of the contract for maintaining the spare parts in

an RFI condition. The Government reserves the right to add or withdraw any item from the support package at any time. Any downtime as a result of a withdrawn part shall be non-chargeable downtime until the part is returned in an RFI condition.

3.1.3 Space. The Government will provide office and workspaces for the Contractor to perform required maintenance and modification efforts. If the contractor requires additional space, the contractor shall be responsible for furnishing their own facility at their own cost.

3.1.4 Government Furnished Property (GFP) Storage. The Contractor shall be responsible for the storage of all GFP furnished under this contract. If the shelving/bins provided are not adequate, the Contractor shall provide a written request on an AIR form for equipment storage modifications to the COTR.

3.1.5 Office Equipment/Furniture. The Government will provide basic office equipment and furniture for Contractor use. Any office equipment/furniture not provided by the Government, which the Contractor requires, shall be the responsibility of the Contractor. A listing of Government-owned office equipment and furniture for Contractor use will be provided to the Contractor during the Mobilization Period.

3.1.6 Audits and Inspections. The contractor shall perform an annual inventory audit of all GFE and GFP including spares, tools, test equipment, furnishings, TDSP, and software support items. The results of this audit shall be provided to the government within 10 days after completion of the audit. Any discrepancies found shall be corrected within 30 days.

## **SECTION 4: CONTRACTOR FURNISHED PROPERTY AND SERVICES**

4.1 General Property Instruction. The Contractor shall exert maximum effort to prevent damage to government property while performing services under this contract.

4.2 Transportation. The Contractor shall furnish all transportation for contractor personnel and material between the trainer facility and other points of business required in the execution of this SOW.

4.3 Office Equipment/Furniture. Any onsite Contractor furnished equipment shall be clearly marked by the Contractor to indicate ownership. A list of any Contractor furnished equipment shall be provided to the COTR and updated as necessary within five working days of any deletions or additions (CDRL C003).

4.4 Contractor Furnished Tools. The Contractor shall be responsible for providing basic hand tools, common support equipment, and any other tools and support equipment not provided by the Government to perform the maintenance and modification tasks delineated in this SOW along with necessary toolboxes and containers for their storage and safekeeping. Any equipment requiring calibration shall be calibrated to best commercial standards. Contractor procured property for contractor use shall be properly labeled and remain the property of the contractor.

## SECTION 5: SPECIFIC TASKS

### 5.1 General.

5.1.1 General Tasks. The Contractor shall be responsible for providing IMOMS of flight training systems. These efforts shall incrementally improve reliability and maintainability of FTS hardware and software, which shall reflect the functionality and dynamics of actual operational aircraft. The Contractor shall maintain the trainers in a fully operational status during contracted training time (CTT). When a trainer problem arises, all effort shall be placed on restoring the trainer to a fully operational status or partial mission capable (PMC) status until required equipment can be made fully operational. The Contractor shall provide all personnel and management required to support the following efforts:

- a. Mobilization
- b. Operation
- c. Maintenance
- d. Modification
- e. Transition

5.1.2 Contract Data Requirements List (CDRL). The contractor shall be responsible for submitting the required DD1423 CDRL data listed in Technical Exhibit (9), and any additional CDRLs resulting from modification efforts.

5.1.3 Two-Person Safety Requirement for Energized Electronic Equipment. Contractor personnel shall not reach within or enter energized electronic equipment enclosures for the purpose of servicing or adjusting. The only allowable exception permitted shall be when such servicing or adjustments are prescribed by official Technical Manuals (instruction books), and then only with the immediate assistance of another person (Safety Observer) capable of rendering adequate aid in the event of an emergency.

5.1.4 Facility Maintenance and Repair. The Contractor shall be responsible for facility maintenance and repair if damage is caused by Contractor negligence. All other facility maintenance and repair will be the responsibility of the Government. The Contractor shall report routine, non-emergency maintenance requirements to the COTR. For emergency facility maintenance the Contractor shall:

- a. During normal working hours, immediately report discrepancies to the COTR and/or the Facilities Maintenance Division at extensions 6201 and/or 6185.

b. After normal working hours, immediately contact the Officer of the Day (OOD) at extension 6845 or 6110. Report Fires to 6100.

#### 5.1.5 Services.

5.1.5.1 Administrative. The Contractor shall provide all administrative services and supplies required for the administration of personnel performing under the contract.

5.1.5.2 Janitorial. The Contractor shall keep the assigned trainers, simulator bays, engineering/computer rooms, and hydraulic rooms in a neat, clean, orderly, presentable, and safe condition. Work areas shall be cleaned up and tools, equipment, technical manuals, software, other work related materials (task residue) returned to their proper storage locations immediately following the completion of each maintenance task. The Government will provide site available cleaning materials and supplies requested by the contractor. All other needed cleaning materials shall be the responsibility of the Contractor. See Technical Exhibit (7) for required schedule.

5.1.5.3 Telephone. The Government will provide Federal Telephone System access and local telephone service consisting of at least 3 lines and 3 phones. Phone use is limited to matters related to the performance of this contract and subject to Government monitoring. Any phone usage found unrelated to this contract shall be reimbursed to the Government by automatic deduction from the Contractor's monthly invoice.

5.1.5.4 Forms. The Government will provide all Government forms and records required by the Contractor to furnish data to administer this contract. Examples of the forms and records are included in Technical Exhibit (11) of this SOW. These forms may be modified or deleted upon approval by the COTR if such modification or deletion would improve the quality or efficiency of the documents, or reduce the amount of paperwork with no loss of required information.

5.1.5.5 Computer and Internet Access. The Government will provide one computer and internet access to the Contractor for the purpose of electronic mail and data transmission in support of the requirements of this SOW. The Contractor shall comply with all installation directives on computer use and internet access. All usage shall be subject to Government monitoring. Any unauthorized use of the Government provided computer with internet access shall be considered misconduct (See Section 1.2.8.3), and may result in Government denial of computer usage and internet access privileges. In the event the Government denies computer or internet access due to unauthorized use, the Contractor shall be responsible for obtaining their own computer system at no cost to the Government.

5.1.6 End of Day Security. The Contractor shall secure the government facilities, equipment and materials at the end of each workday.

#### 5.2 Mobilization.

##### 5.2.1 Contractor Responsibilities.

a. A 30-day Mobilization Period is required prior to the Contractor assuming responsibility under the requirements of this SOW. During the Mobilization Period the Contractor shall acquire personnel, conduct familiarization and qualification training operations, inventory Government Furnished Property (GFP), document status of known trainer deficiencies, review preventative maintenance procedures, negotiate and prioritize modification tasks, develop a draft plan for the modification and upgrade efforts, and perform all other necessary tasks in preparation for assumption of full performance responsibilities at CSD. The Contractor may observe the performance (over-the-shoulder) of all operational and maintenance tasks being performed by the transitioning Contractor as an On-The-Job Training (OJT) function on a not-to-interfere basis with training and maintenance throughout the Mobilization Period. The Contractor shall assume full responsibility for the training devices upon completion of the Mobilization Period at CSD. Any updates or changes to existing documentation or material the contractor feels should be implemented shall be presented on an AIR form to the COTR for approval. Actual custody of material turnover will be accomplished as near to the end of the Mobilization Period as possible in order to align the custody change with the change in performance responsibility.

b. The Contractor shall have all qualified personnel on-board at the training site no later than CSD. Government personnel will assist in providing initial operational checkout on the training devices if requested by the Contractor.

c. The Contractor shall perform an inventory audit and submit an Inventory/Utilization Data Report that includes all GFE and GFP (including spares, tools, and test equipment, furnishing, TDSP, and software support items (CDRL C002). The Contractor shall document all discrepancies found on an AIR form, and submit these forms to the Government in accordance with B002. Any discrepancies found during the inventory audit shall be corrected within 30 days.

d. During the turnover, an inspection may be conducted between the Contractor and the Government to establish the condition baseline of each training device using inspection procedures established by the Government [usually a portion of the Acceptance Test Procedure (ATP), Trainer Test Procedures, and/or Daily Readiness Report].

5.2.2 Joint Conferences: A joint Government/Contractor Mobilization conference shall be conducted approximately one week after contract award at the Government site to discuss the Contractor's Mobilization Plan (CDRL B001), modification task list, and the respective responsibilities of all parties. A joint Government/Contractor "Pre-CSD" conference will be conducted approximately (one) 1 week prior to CSD to discuss the Contractor's readiness to assume full responsibility at CSD. The Contractor shall submit a Mobilization Report (CDRL B002) to the Government at the Pre-CSD Conference or request an extension for submission. Outstanding parts backlog repair and/or receipt deadlines and status of the training devices including discrepancy reports and inventory (CDRL C002) shall be discussed at the "Pre-CSD" meeting. Future conferences may be scheduled as required (CDRL B004 and B005 apply to all conferences).

### 5.3 Trainer Operation.

5.3.1 Contracted Training Time. The trainer will be under the cognizance of the Government for scheduling control and will normally be scheduled for training during the CTT (0700-2300 daily, except for holidays and weekends). If scheduling outside the CTT is required, the Contractor will be given notice as indicated herein.

5.3.2 Adjustment of Contracted Training Time. Adjustment of CTT will usually be constrained to movement of the standard time block to a different part of the day, but in unusual cases may include expansion of the standard time block without the exercise of additional training time. In no case, however, will CTT be exceeded without the authorization of additional training time. The Government will exercise due consideration of Contractor shift cycles in adjusting CTT. The Contractor will be given 24 hours minimum notice of any change in CTT.

5.3.3 Make-up of Lost Training. Make-up of lost training will be accomplished at the discretion of the COTR or the scheduling authority to meet the training requirements.

5.3.3.1 Same Day/Contracted Training Time. Make-up training accomplished during CTT of the same day that the lost training occurred will be coordinated with the Contractor and conducted at the discretion of the scheduling authority. No advance notification is required.

5.3.3.2 Other. Make-up training other than that specified in paragraph 5.3.3.1 will be at the discretion of the scheduling authority. Make-up of lost training due to CDT will, at the discretion of the scheduling authority and commensurate with the urgency of the training need, be accomplished outside of CTT at no additional cost to the Government. Except where precluded by the proximity of the scheduled training period to the end of CTT (e.g., last period(s) for each day), the Contractor will be given three (3) hours minimum notice of these make-up training requirements. Make-up of lost training due to non-chargeable down time (NCDT), which cannot be accomplished during CTT, will be regarded as additional training time.

5.3.4 Additional Training. The Contractor will be given 24 hours minimum notice of this requirement. Additional training may be conducted on weekends and holidays by the scheduling authority with COTR approval.

5.3.5 Training Schedule. The Government will provide the Contractor a weekly Training Schedule (See Technical Exhibit 11 for example schedules) on the last Government working day preceding the first day of the period covered by the schedule. The weekly training schedule may be adjusted by the Government scheduling authority with no advance notice provided such training falls within the CTT.

5.3.6 Trainer Operator Responsibilities. Prior to the commencement of the first scheduled period of the day, the Contractor shall ensure the trainers are operationally ready. Any discrepancies and/or malfunctions that have not been, or cannot be, corrected shall be properly posted and documented on a Carry Forward Discrepancies form (See Technical Exhibit 11 for example form), in the trainer discrepancy book of the device for review by the device users. The



Contractor shall perform initial start-up of the trainer and ensure that the correct operations software is loaded and ready. The Contractor shall insert initial conditions and parameters in response to published schedules. The Contractor shall respond to any request from the instructor for assistance or to insert different parameters such as weather conditions, target changes and/or any other changes within the capability of the trainer. Contractor personnel shall be in an on-call status and respond, in person, to instructor/user requests as soon as possible but no more than five (5) minutes from the initial call.

5.3.7. Limitations. The Government will not require Contractor personnel to be responsible for providing instruction to students.

5.3.8 Pre/Post Flight Inspections. The trainer(s) shall be subject to on-the-spot pre-flight and post-flight inspections by the COTR or designee, as required.

5.3.9 Walk-in Students. The trainer(s) shall be available for walk-ins by authorized users at the scheduling activities or COTR's discretion, whenever the trainer(s) are not required for scheduled training during CTT.

5.3.10 Unscheduled Periods. During unscheduled periods in CTT, the Contractor may, with the COTR's permission, have access to the trainer(s) to perform scheduled/unscheduled maintenance. The COTR may direct the Contractor to stop the maintenance efforts and ready the trainer(s) for use within a specified time period. The stipulated time period shall be decided by the COTR and shall depend on the type of maintenance in progress and the probability of the trainer(s) being required during the remainder of the CTT.

5.3.11 Unattended Operations. The trainers located in Erickson Hall shall not be left in an unattended condition at any time unless all power systems are de-energized.

#### 5.4 Trainer Maintenance.

##### 5.4.1 General Provisions and Practices.

5.4.1.1 General. The Contractor shall assume full maintenance and support responsibility including tests, alignment, and calibration for each training device, whether it is operable or inoperable, upon completion of that trainer's Mobilization Period at CSD. A grace period of Non-Chargeable Downtime, as determined by the COTR, will be given the Contractor to repair any inoperable training device. The Contractor shall notify the COTR and scheduling authority of any cancellation of training time due to CDT or PMCT as soon as practical.

5.4.1.1.1 Maintenance Time. The trainers will normally be available to the Contractor for maintenance a minimum of eight (8) continuous hours each 24-hour period.

5.4.1.1.2 Operational Training Time. The Contractor shall ensure that all systems/subsystems are in an operational status, and provide realistic systems responses throughout the training

event/period. The decision to initiate, continue, or cancel a training event/period when degradations occur shall be that of the instructor/user or COTR.

5.4.1.1.3 Operational Status. A trainer shall be considered operationally ready if the total number of discrepancies and/or malfunctions per training event/period as documented by the users on the Government provided maintenance forms (See Technical Exhibit 11 for example form), is less than two, or when called, the total corrective maintenance by contractor personnel is less than 20 minutes, and the trainer is returned to the user for training. If more than one discrepancy or interruption per training event/period occurs or if the total corrective maintenance response exceeds 20 minutes per training event/period, the entire training event/period shall be considered as CDT or PMCT and shall remain in that status until the degradation is corrected. When completion of the scheduled training mission is precluded by trainer malfunction, the entire period shall be recorded as CDT unless the Instructor/COTR elects to initiate training in a degraded mode. The COTR will resolve any disputes as to operationally ready status and have final authority.

5.4.1.2 Modifications Performed on Maintenance Shifts. Modification efforts may be performed on maintenance shifts on a not to interfere basis with corrective and preventive maintenance or pre-flight/system readiness. Temporary minor changes to the physical configuration, or minor calibration/adjustment of aircraft common equipment required for use of such equipment in the trainer(s) shall not change the designation of the equipment.

5.4.1.3 Backup Support. If the Contractor's on-site maintenance personnel are unable to correct problems within a 24-hour period after they occur, the Site Manager or alternate with concurrence from the COTR shall call in backup/subcontractor assistance. In addition, the COTR or his assistant shall be kept informed by the Site Manager or Alternate of the progress being made and the corrective actions taken to prevent future problems. Details of the discrepancy and any backup support shall be included in the Monthly Status Report (CDRL B003).

5.4.1.4 Handling and Temporary Storage of Hazardous Materials/Wastes.

a. The Contractor shall handle, containerize and store all regulated hazardous and non-hazardous waste generated as a result of their maintenance. The Contractor shall prepare regulated waste for disposal action in accordance with Chapter IV of the ATC Organization Manual. The Contractor shall maintain relevant Material Safety Data Sheets (MSDS) on site.

b. The Contractor shall be responsible for the maintenance of existing internal and external temporary storage areas for regulated wastes in and adjacent to the simulator spaces at ATC.

c. The Contractor shall be responsible for complying with ATC's directives and addressing the management and control of regulated wastes and hazardous materials as outlined in local USCG instructions.

d. The Contractor shall be responsible for providing any required certified training to Contractor employees IAW applicable Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA) and state regulations.

e. The Contractor shall be responsible for any additional expenses incurred as a result of any acts of noncompliance with or violation of federal, state or local laws and regulations as a result of the Contractor's management of regulated waste or hazardous materials such as inappropriate records, failure to source separate wastes, spills, failure to provide chemical composition of wastes, etc.

5.4.1.5 Software. All modification, upgrade, operation and maintenance support of software programs and documentation shall be the responsibility of the Contractor. The contractor shall use the existing onsite Configuration Management (CM) system for the assigned trainers. All software discrepancies shall be documented on the appropriate form, prioritized and corrected as soon as practical on a not to interfere with scheduled training basis unless prior coordinated with the COTR. The Contractor retains maintenance responsibility for software that has been changed as a result of Government action. All software generated or acquired for use on the trainers shall belong to the Government and shall not be duplicated, used, or disclosed – in whole or in part – for any purpose without the permission of the Contracting Officer. The master copies of all software shall be kept in a secure safe provided by the Government and located at ATC. Modification copies may be used off site and then returned to the COTR.

5.4.1.5.1 Software Maintenance. As part of the normal maintenance effort, as opposed to modification efforts described in section 5.5, the Contractor shall be responsible for the following software support:

- a. Maintain software media in an operable condition (including appropriate copies).
- b. Insert approved media patches/updates/overlays to existing trainer programs.
- c. Load data on trainer software media as required.
- d. Copy media materials for replacement, backup, or modification efforts.
- e. Isolate malfunctions or operational discrepancies caused by software programs, to the lowest definable level.
- f. Assist in the assembly/compile of trainer programs from source programs.
- g. Maintain a permanent record of all temporary and permanent software media patches/updates/overlays.
- h. Make routine changes to navigation databases, e.g., DAFIF, and initial conditions sets.

5.4.1.5.2 Software Support Materials. The Contractor shall maintain and update the software support materials for each trainer listed in this SOW. The software support materials shall be maintained and updated to reflect all changes and modifications to the trainers (CDRL A001).

5.4.1.5.3 Technical Data Support Package (TDSP). The Contractor shall maintain and update as necessary the TDSP for the trainers addressed in this SOW. The TDSP consists of all technical documentation, including drawings, identified in each trainer's MSP and listed in the Technical Exhibits of this SOW.

5.4.1.5.4 Replacement. Documentation that becomes obsolete or requires replacement due to normal wear will be replaced by the Government at no charge to the Contractor.

5.4.1.5.5 Changes.

5.4.1.5.5.1 Government Initiated. The Government will provide all change directions resulting from Government approved updates or modifications to the Contractor for insertion into the TDSP. The Contractor shall incorporate all changes within one calendar month after receipt from the COTR.

5.4.1.5.5.2 Contractor Recommended. If, during the course of performance under this SOW, the TDSP is found to be incorrect or incomplete, the Contractor shall recommend appropriate corrections to the COTR on an AIR form.

5.4.1.5.6 Master Technical Library. The Contractor shall maintain, update, and keep in good order as necessary the Government's Master Technical Library (hard and soft copy) that includes:

- a. Aircraft System Publications.
- b. Trainer Publications.
- c. Instructor Utilization Handbooks (IUH)/Training Considerations Report (TCR).
- d. Operation & Maintenance Publications.
- e. GFP Inventory
- f. Drawings

5.4.1.6 Supply Support. The Contractor shall be responsible from CSD through the end of this contract for:

- a. Maintaining spare parts in the stock inventory.
- b. Maintaining a perpetual inventory.

c. Maintaining a cross-reference list for parts used in repair or inventory that differs from original designation.

d. Tracking failure rates and monthly costs of Government furnished parts, equipment and supplies.

e. Acquiring written approval from the COTR for Materials removed from the site.

f. Storing spare parts in an organized manner or IAW applicable USCG directives or requirements. Spare parts shall be labeled/tagged to indicate condition (i.e., "RFI", Needs repair, etc.).

g. Acquiring written approval from the COTR for substitute replacement parts/materials to be replaced. The Contractor shall ensure that materials, parts, and accessories recommended as replacement items are equal to or superior to the original and interchangeable without alteration.

5.4.1.6.1 Replenishment/Replacement. The Contractor shall be responsible for requisitioning any trainer peculiar equipment, parts, components or assemblies necessary to accomplish trainer maintenance. All spares and Government furnished parts shall be maintained in an RFI condition. USCG local supply procedures and forms will be discussed and provided during the Mobilization Period (See Technical Exhibit 11 for example forms).

5.4.1.6.2 Adjustments. Contractor recommended adjustments to initial stock levels of Government Furnished Material (GFM) that are based on past/projected usage rates or other justifiable factors, as may be applicable, shall be submitted to the COTR on an AIR form for Government consideration.

5.4.1.6.3 Consumable Items. Consumable/Expendable spare parts stock levels recommended as not critical to trainer operation and maintenance support, may be depleted (not replenished or replaced) or removed from inventory with Government approval. The Contractor shall submit recommendations for depletion or deletion to the COTR on an AIR form for consideration.

5.4.1.7 Ordering Procedures. The Contractor shall requisition parts and supplies from the Government using the Government supplied local forms to replenish all necessary repair parts and supplies when needed or when regularly stocked supplies run low. The contractor shall prioritize requisitions based on the operational impact to the simulator.

5.4.1.7.1 Accountability of Supplies. The Contractor shall be responsible for requisition tracking, receipt, inventory control and accountability for all supplies utilizing the Government furnished computer inventory control system. A list of itemized monthly supplies and associated costs shall be included in the monthly status report (See CDRL B003).

5.4.1.7.2 Adjustment of Spare Parts. The Contractor shall make recommendations on an AIR form for additions or deletions of repair parts and supplies based on tracked failure rates using the supplied inventory system.

5.4.2 Scheduled/Preventive Maintenance. A regular schedule of preventative maintenance including corrosion control (e.g., touch-up painting, rust removal, repair of bent or damaged panels, etc.) shall be performed by the Contractor IAW the trainer approved Planned Maintenance System (PMS). The Contractor shall recommend PMS changes, which in their opinion, would result in either improved availability and/or reduced costs. Such recommendations shall be provided on an AIR form to the COTR for approval and if approved, incorporated by the Contractor. All PMS inspections shall be recorded on appropriate forms and action taken to clear the discrepancy/discrepancies shall be completed in five (5) work days. This action is relevant to Performance Requirement Section 6.3.

5.4.2.1 Hydraulic Fluid Testing. The Contractor shall perform hydraulic fluid testing IAW EPA and local USCG policies. Samples shall be taken IAW the trainers' PMS or whenever hydraulic fluid contamination is suspected. Fluid samples shall be provided to the COTR for laboratory analysis. When contamination levels are found unacceptable, immediate corrective actions are to be taken by the Contractor and reported to the COTR on an AIR form.

5.4.2.2 Electrostatic Discharge (ESD) Sensitive Devices. The Contractor shall handle, store and maintain all ESD sensitive components/assemblies (electrical and electronic components) IAW applicable USCG directives (See COMDTINST 10550.25, Electronics Manual) or applicable trade regulations in the absence of USCG specific guidance.

## 5.5 Changes and Modifications.

5.5.1 General. The Contractor shall install Government approved trainer modifications as a matter of normal contract performance. The Government reserves the right to perform trainer modifications through other government and/or commercial sources. A Modification's Task List (MTL), provided in Technical Exhibit (8), lists the known Government desired modifications and will be updated as necessary to reflect changing priorities in operational or training needs. Modification efforts shall be secondary to keeping the trainers maintained and fully operational. The Contractor may also suggest modifications to the Government through the use of Engineering Change proposals in accordance with CDRL A004. Examples of typical modification efforts include, but are not limited to, Discrepancy Report (DR) clearance, clearance of discrepancies that conform to the Trainer Test Procedures Results Report (TTPRR) baseline but are determined to be modeled incorrectly, correction of latent discrepancies from previous modifications accepted by the government, hardware additions or upgrades, visual system upgrades, software rewrites on existing code and/or programming due to new equipment modifications, documentation rewrites and updates.

5.5.1.1 Modifications Efforts Under CLIN0007. Modification efforts that are outside the scope of the contracted time and materials resources shall be evaluated and approved separately under CLIN 0007. The Contractor shall submit a project statement of work, firm fixed-price cost

proposal and integrated master schedule to the COTR for consideration. The Government retains the right to perform trainer modifications through other government and/or commercial sources.

**5.5.1.2 Systems Engineering.** The Contractor, as directed by the Government via AIR's, shall perform feasibility and engineering studies to correct deficiencies and support enhancements and modifications, conduct technical research and analysis, and generate training efficiency and cost effectiveness studies.

**5.5.2 Contractor Responsibilities.** The Contractor shall provide all necessary personnel and materials to design, develop, install, document, and test training device changes/modifications in accordance with this SOW and each Government approved change/modification directive. Any changes or modification shall be compatible with other training device equipment and materials. In the event the Government selects another contractor to perform a modification, the Contractor accomplishing the modification shall be responsible for maintaining the affected station(s) and subsystem(s) of the training system under modification and shall enter into an associate Contractor Agreement to define maintenance responsibilities.

**5.5.2.1 Installation, Integration and Test Plan.** The contractor shall submit for approval an Installation, Integration and Test Plan for each modification undertaken in accordance with CDRL A006. The submitted Test Plan shall include testing of the following components as applicable: IOS, Visual System, Motion System, Electrical System, DRED, TTPRR, Operation/Mission Tests, Malfunction Tests, and Electromagnetic Radiation Tests.

**5.5.2.2 Monthly Progress Status.** A monthly progress status of all active modifications shall be provided in the monthly report (CDRL B003).

**5.5.3 Applicable Documents.** Trainer changes and modifications shall be made in compliance with the Government approved Installation, Integration and Test Plan for each item listed and undertaken for modification on the MTL. The Government will assist the Contractor in obtaining all Original Equipment Manufacturer (OEM) manuals, drawings, Technical Orders (TOs), and specifications necessary to perform these tasks. Warranty Reports shall be submitted by the Contractor for all hardware/software installations in accordance with CDRL B008. Engineering Drawings for modifications shall be submitted in accordance with CDRL A003. An Interim Support Items List (ISIL) shall be submitted by the Contractor for all major systems hardware modifications in accordance with CDRL C001. All documentation outlined in CDRL C004 and E003 through E011 shall be updated or delivered, as applicable. All documentation acquired for modifications shall become property of the Government, inventoried and filed with the appropriate trainer documentation.

**5.5.4 Installation of trainer modifications.** Trainer modifications and upgrades shall be installed, as much as practicable, on a not to interfere with scheduled training basis. The Contractor shall hold weekly site progress meetings with the Government to discuss the status of all active modification efforts, trainer availability, ongoing maintenance, and any problems encountered.

5.5.5 Extensive Modification efforts. Extensive modifications may require temporary reduction/stand-down of training operations. The Government and Contractor shall mutually agree upon these efforts. The contractor shall plan these efforts at least (90) days in advance. The Government retains the right to delay or reschedule planned modifications efforts due to operational and training requirements.

5.5.6 Acceptance Testing. The Government reserves the right to perform any acceptance tests to verify trainer performance and functionality as a result of any Contractor installed changes or modifications. The Contractor shall provide all necessary materials, equipment, and personnel to support Government test efforts.

5.5.7 Inspections. When the Contractor makes changes or modifications to the trainer, Pre-Modification and Post-Modification Inspections shall be conducted as addressed below. A Pre-Modification Inspection will be accomplished at the discretion of the Government prior to Contractor installed changes or modifications.

5.5.7.1 Pre-Modification. When trainer changes or modifications are to be installed, the COTR with the participation of the Contractor will conduct a Pre-Modification Inspection. This inspection will establish the configuration and material condition baselines using inspection procedures established by the Government. The Government will conduct all or portions of the Trainer Test Procedures and Results Report (TTPRR). The Contractor shall be required to correct conditions that would degrade or preclude installation efforts.

5.5.7.2 Post-Modification. Post-Modification inspection will include Contractor Final Inspection (CFI) and Government Final Inspection (GFI). The COTR and/or designated representative, with the participation of the Contractor, shall conduct GFI after CFI. These inspections will validate trainer performance and MSP configuration/condition IAW modified specifications and the baseline conditions established during the Pre-Modification Inspection. These inspections will establish the revised hardware, software, and material baselines. The Government will conduct all or portions of the TTPRR to verify that the changes/modifications meet the requirements of this SOW, the issued directives, and has not degraded training device performance or fidelity. Any discrepancies noted during these inspections shall be documented in an AIR form and corrected by the contractor within 30 days of the date of the inspection. In the case of Contractor installed changes and modifications, the CFI and GFI may be combined with COTR approval.

5.5.7.2.1 Physical Configuration Audit (PCA). A PCA shall be performed by the Government with participation from the Contractor to verify that the deliverable hardware and software documentation accurately reflect the configuration items. The examination conducted with power off, will encompass all areas, major assemblies, and subassemblies modified to ensure conformance with Parts, Construction, Assembly, Fit, Wire Markings, Nameplates, Safety and Workmanship. The results of the audit will be forwarded to the COTR in accordance with CDRL A005. Any discrepancies found will be recorded on an AIR form, submitted to the COTR and corrected within 30 days.



5.5.7.3 Coldstart. FTS modified software, including all databases, shall require cold start testing. Additionally, an annual cold start shall be conducted during the last week of September to verify complete system generation. This annual cold start can be combined with other modification efforts that are being incorporated. Any discrepancies or errors shall be corrected and rechecked prior to acceptance of that monthly invoice.

a. The cold start test shall commence with all power removed and all main memory and online storage media formatted, but otherwise blank.

b. The device computer system shall be energized and the cold-start run IAW the detailed step-by-step procedures in the TTPRR.

c. The cold start shall include a complete system generation using only deliverable hardware, software, and documentation. All executable code shall be created from the source programs and command or job control language and database source data.

d. The process by which the cold start is accomplished (e.g., script, batch, job control file/program) shall be considered as software and shall be documented and controlled as such.

e. The cold start process shall not suppress the generation of any error messages nor warnings that occur from the library, assembly, compile, or link processes.

f. There shall be no errors nor abnormal condition of any kind, including warnings, in either the source or resultant executable or database code prior to the start of testing (e.g., no error indications of any degree from the library, assembly, compile, or link processes).

g. Should compiler or linker warnings be generated, they shall be documented and justified in the cold start procedure. The resultant executable and database code shall be loaded into the computers and mass storage devices, and used for the balance of each of the Government tests.

h. The cold start procedure shall be conducted at the beginning of GFI and repeated, as required, during Government testing, to ensure validity of the software baseline.

5.5.8 Reliability/Maintainability (R&M) Changes. Change requests to improve trainer R&M, including parts interchangeability, shall be submitted in writing by the Contractor to the COTR. No changes shall be made prior to official Government approval of the request.

5.5.9 Documentation Updates. For each modification undertaken, the Contractor is responsible for submitting the applicable COTS Manuals (CDRL E001) and updating applicable documentation (CDRL E002).

5.5.9.1 TTPRR Documentation Updates. The contractor shall be responsible for redlining and updating the TTPRR to reflect the results of any DR correction, modification, integration, and

testing efforts. The change pages shall be submitted to the government for inspection and approval prior to incorporation into the TTPRR (CDRL A002).

5.5.9.2 TDSP Updates. The Contractor shall be responsible for redlining and updating the TDSP to reflect the results of any DR correction, modification, integration and testing efforts. The change pages shall be submitted to the government for inspection and approval prior to incorporation into the TDSP. The TDSP consists of all technical documentation (including drawings) identified in each trainer's MSP and listed in each trainer's appendix. If the TDSP does not list the drawing to be updated, the Contractor shall submit an AIR form to the COTR requesting the update for inclusion into the TDSP.

5.5.10 Discrepancy Report (DR) Clearance. The contractor shall correct all hardware and software discrepancies found on the training devices that have been approved by the COTR. The Contractor shall devise a format and numbering system to track all DRs encountered. DR clearance status shall be reported on a monthly basis (CDRL B003).

a. Software DR Clearance: The contractor shall identify all corrective actions and make the required software code modifications and additions to restore the training devices software to its full operational state.

b. Hardware DR Clearance: The contractor shall identify all corrective actions and make the required hardware repairs to restore the training devices hardware to its full operational state.

5.5.11 Software Modifications and Changes. The contractor shall be responsible for maintaining all software media and firmware in an operable condition in the current and approved configuration:

- a. Incorporating government approved changes;
- b. Isolating malfunctions and operational faults to the lowest hardware module or software source line of code.
- c. Identifying and developing the appropriate corrective software measures.
- d. Implementing the appropriate software code modifications and additions to restore the media an operable condition.
- e. Maintaining records of all changes and additions to the software code.
- f. No changes or modifications shall be made to the software without prior government approval. All software developed for this contract shall become the sole property of the government.

5.6 Configuration Management (CM).

5.6.1 Baseline Definition. Technical Documentation addressed in Technical Exhibits 1, 2, 3, 4, 5, & 6 defines the trainer hardware baseline. Existing trainer software data/programs and documents will be provided by the Government at CSD to the Contractor. These documents and media establish the software baseline for purposes of this contract. An inventory of the trainer software shall be conducted during the Mobilization Period and used to update the inventory provided in the Technical Exhibit section of this SOW.

5.6.2 Control. No changes or modifications to the trainer(s) hardware or software and documents shall be made without the approval of appropriate Government authority. Government approved modifications/changes to the trainer(s) may be accomplished by the Government or by the Contractor depending upon the nature and scope of the work and systems to be modified as described/outlined in the modification tasks list. The master copies of baseline source code and drawings shall be kept at the training site. All documentation and code provided, generated, or acquired under this contract shall belong to the Government and shall not be duplicated, used or disclosed – in whole or in part – for any purpose without the expressed written consent of the Government.

5.6.3 Configuration Management Implementation: The contractor shall use the existing on-site Configuration Management (CM) process or implement an improved system (CDRL D001) that is compatible with the existing process. It should identify the functional and physical characteristics of the training systems and subsystem during its life cycle, control changes to those characteristics, and record and report change processing and change implementation status. The contractor shall utilize the COTS automated configuration management tracking system as part of the CM process to:

- a. Record the configuration baseline of the training system's hardware and software;
- b. Records and reports changes to the configuration baseline(s) of the training systems;
- c. Maintain a record of all software and hardware versions, version implementation dates, and current revision status;
- d. The CM process procedures shall be documented and maintained as part of the TTPRR.

## 5.7 Transition.

5.7.1 Responsibility. The Contractor shall retain all responsibilities specified in this SOW during the entire Transition Period. To meet SOW requirements during transition, the Contractor shall maintain the same level of performance during the Transition Period as during the original contracted effort. The Contractor shall be responsible for providing sufficient experienced personnel during the Transition Period to insure the services called for in the SOW are maintained at a high level of proficiency.

5.7.2 Transition to Successor. If the Contractor is not successful in obtaining the subsequent Government contract for the trainer(s), the Contractor shall, during the last sixty (60) days of this

contract or any extension thereto, provide all reasonable support to the successor Contractor to ensure an orderly transition and minimize any impact on operational readiness of the trainer(s). As a minimum, the Contractor shall provide the successor contractor access to the site, trainer(s), material, inventories, and to all technical documentation and publications and shall allow the successor Contractor to observe the performance (over-the-shoulder) of all required maintenance and support tasks as an OJT function on a not-to-interfere with training and maintenance basis throughout the Transition Period.

**5.7.3 GFP Inventory.** The Contractor shall perform inventories of tools, support equipment, spare parts, and technical data/documentation to determine and document the current status and levels (CDRL C002). During the Transition Period, the monthly status report (CDRL B003) shall identify any missing or outstanding GFP. The status of items shall identify lost items by common name, part number, serial number, NSN, items on order, items in repair (on and off site), their cost, and when the item(s) will be returned to useable status or replaced. The Government and/or Contractor inventories kept and updated by the Contractor during the performance period of this contract shall be relinquished to the successor Contractor on the last full working day of the transition period.

**5.7.4 Facilities.** During the Transition Period and before expiration of this contract the Government will perform an inspection of the ATC facilities occupied by the Contractor to ascertain the condition of these facilities. Any discrepancies found shall be documented on an AIR form, submitted to the COTR, and corrected by the Contractor within 10 working days and prior to payment of the final invoice.

**5.7.5 Trainer Condition.** During the Transition Period or upon expiration of this contract the Government may perform inspections/tests to assess the condition of each trainer. Inspection and test procedures will be established by the Government (usually all or portions of the ATP, TTPRR, diagnostics, Daily Readiness Test (DRT), mission test, etc.). The Contractor shall be responsible to correct all conditions/deficiencies in trainer performance that degrade or preclude full exploitation of the trainer. All outstanding Maintenance Action Forms, DRs, and active modification efforts shall be completed and properly documented, unless an unfinished status is agreed upon by the Government, prior to the end of the Transition Period.

## **6.0 - REFERENCES**

**6.1 Introduction:** The following documents, technical exhibits, and CDRLs form a part of this work statement to the extent specified. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all requirements documents cited in this work statement, whether or not they are listed herein.

**6.2 Precedence:** In the event of a conflict between this work statement and the references cited herein, the text of this work statement takes precedence. Nothing in this document supersedes applicable laws and regulations unless a specific exemption has been obtained.

6.3 Specifications:

ANSI/ISO/ASQC-Q9000

Quality Management and Quality Assurance Standards - Guidelines for Selection and Use

ANSI/ISO/ASQC-Q9001

Quality Systems - Model for Quality Assurance in Design/Development, Production, Installation, and Servicing

## TECHNICAL EXHIBITS

## TECHNICAL EXHIBIT (1)

### TRAINER DESCRIPTION FOR DEVICE HU-25A AND HH-65C

#### 1.0 DEVICE HU-25A AND HH-65C OPERATIONAL FLIGHT TRAINERS

1.1. Function and General Description. The HU-25A and HH-65A trainers were built by Sperry Systems Management Group under contract NTCG23-81-C-30069 and delivered to the US Coast Guard, Aviation Training Center (ATC), Mobile AL in the mid 1980s. The HU-25A/HH-65C Flight Training System (FTS) is hereafter referred to individually as the HU or HH or collectively as the trainers. The commonality of hardware and software used to implement HU or HH simulation is based on the actual aircraft functions. Thus, although the hardware is identical or nearly identical, except for the Trainee Station, the software differs in most cases. For a complete description of both devices, refer to each device's Operation and Maintenance manuals and commercial documentation.

1.2 Trainee Station. Each Trainee Station consists of cockpit instrumentation, cockpit lighting, cockpit panels, flight controls and associated control loading units (primary and secondary), cockpit hardware (seats, consoles, etc.), circuit breaker panels, and an air conditioning control unit.

1.3 Instructor/Operator Station (IOS). Each IOS consists of a PC based subsystem, system electronics racks, Intercommunication Control System (ICS) stations (instructor and observer), and emergency lighting.

1.4 Control Station. N/A

1.5 Computer System(s) and Peripherals. See TECHNICAL EXHIBIT (6)

1.6 Aircraft Common Subsystem. N/A

1.7 Power System. See TECHNICAL EXHIBIT (6)

1.8 Visual/Video System(s). See TECHNICAL EXHIBIT (6)

1.9 Motion System. Each trainer has a Singer six degree-of-freedom motion system. The motion system begins at the connection points to the foundation and includes the Hydraulic Pump, Motion Platform, Hydraulic Plumbing, Motion Cabinet/Console, electrical cables, Facility-to-motion system power cables.

1.10 Air Conditioning System. The hoses and connections to the trainers are considered part of the training system. The Air Conditioning Units are part of the facility and maintained by the Government.

1.11 Motor Generator Sets. See TECHNICAL EXHIBIT (6)

1.12 Hydraulic System. See TECHNICAL EXHIBIT (6)

1.13 Planned Modifications. See Technical Exhibit (8).

2.0 ILLUSTRATIONS. Not used.

3.0 MISSION ESSENTIAL SUBSYSTEM MATRIX. Not used.

4.0 CONTRACTED TRAINING TIME. See SOW.

## 5.0 AIRCRAFT COMMON EQUIPMENT/TRAINER PECULIAR EQUIPMENT

### 5.1 HU-25A Aircraft Common Equipment

COMPONENT	CEI	ON SIM	SPARE	TOTAL
PILOT MACH/SPD IND. MSI-80 622-2702-001	AV-3424-040	1(P)	1	2
ALTIMETER, ENCODE AAU-21/U 622-2701-001 ALI-80	AV-3424-070	1(P)	1	2
RADALT IND. 339H-4 622-1204-008	AV-3414-030	2	0	2
COCKPIT CONTROL, CCD-806	AV-2380-021	2	0	2
INDICATOR, BEARING DISTANCE 622-3702-015 BDI-36	AV-3453-062	2	1	2
REMOTE READOUT 622-1956-012 339R-18	AV-2380-060	1	1	2
622-1945-012 339R-7	AV-2380-330	1	1	2
622-1949-012 339R-11	AV-2380-340	1	1	2
622-1957-012 339R-19	AV-2380-350	1	1	2
INDICATOR, ADI, 329B-8Y 792-6357-009	AV-3462-101	2	2	4
ALT PRE SEL PNL 622-2703-001		1	1	2
AOA INDICATOR SLZ9712		1	1	2
TCAS CONTROL PANEL (MODE S)	AV-3468-020	1	0	1



VERTICAL SPEED INDICATOR	AV-3468-070	2	0	2
EHSI MFD-255	AV-4630-015	2	0	2
MOUNT, TYPE MT-255D	822-2075-001	2	0	2
CONTROL HEAD CP-255	AV-4630-020	2	1	3
INTERFACE RECEPTACLE UNIT	AV-3460-020	1	1	2
PROGRAM DATA TRANSFER MODULE	5923000000	1	1	2
INS, CONTROL DISPLAY UNIT	AV-3465-030	1	0	1
HV INU MSU (MODE SELECTOR UNIT)	AV-3465-020	1	1	2
PRIMARY SERVO	AV-2210-060	4	1	5

Note: This list is for preliminary inventory information only! Formal, complete inventory shall be taken during mobilization.

## 5.2 HH-65C Aircraft Common Equipment

COMPONENT	CEI or PN	ON SIM	SPARE	TOTAL
REMOTE READOUT, RRU 339R-7 (P) 622-1945-013	AV-2312-220	1	1	2
REMOTE READOUT, RRU 339R-11 (CP) 622-1949-012	AV-2312-221	1	1	2 2
INDICATOR, BEARING DISTANCE 622-3702-016	AV-3453-061	1	1	2
IND, ATTITUDE DIRECTION ADI 622-4423-001	AV-2213-060	2	2	4
INDICATOR, RAD ALT JG1072AJ02	AV-3417-030	2	1	3

CONTROL, RADAR CN-1306 JG1072AJ02	AV-3417-030	2	1	3
TCAS CONTROL PANEL (MODE S)	AV-3468-020	1	1	2
VERTICAL SPEED INDICATOR	457400ZA1501	2	0	2
INTERFACE RECEPTACLE UNIT	5921000001	1	1	2
PROGRAM DATA TRANSFER MODULE	5923000000	1	1	2
EHSI MFD-255	AV-4630-015	2	0	2
CONTROL HEAD CP-255	AV-4630-020	2	1	3

Note: This list is for preliminary inventory information only! Formal, complete inventory shall be taken during mobilization.

#### 6.0 TOOLS AND SUPPORT EQUIPMENT

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>	<u>QTY</u>
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The formal inventory will be taken during Mobilization.

#### 7.0 SPARE PARTS

Preliminary inventory will be available on site during the Pre-proposal Site Survey Conference. The formal inventory shall be taken during Mobilization.

#### 8.0 TECHNICAL DATA SUPPORT PACKAGE (TDSP)

Preliminary inventory will be available on site during the Pre-proposal Site Survey Conference. The formal inventory shall be taken during Mobilization.

#### 9.0 SOFTWARE SUPPORT MATERIALS

<u>QTY</u>	<u>TITLE</u>	<u>SERIAL NUMBER</u>
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Preliminary inventory will be available on site during the Pre-proposal Site Survey Conference. The formal inventory shall be taken during Mobilization.

#### 10.0 PARTIAL MISSION CAPABILITY STANDARD. See definitions and Section (6) of SOW.

## 11.0 FLOOR PLANS AND PROJECTED ADDITIONS. Not used.

## 12.0 OFFICE EQUIPMENT FURNISHINGS

### 12.1 DEVICE HU-25A/HH-65A MAINTENANCE SPACE GFE FURNISHINGS

- 10 multi drawer VIDMAR cabinets for spare inventory
- 7 metal storage lockers (for consumables, etc.)
- 7 metal shelf units
- 5 five-drawer filing cabinets
- 1 two-drawer filing cabinet
- 2 small metal bookcases
- 3 large wood bookcase
- 2 work benches
- 2 desks
- 1 large interior flammable storage locker
- 1 large media safe
- 4 table type work benches
- 7 adjustable stools
- 4 chairs
- 1 step stool
- 1 coat rack
- 1 small green metal dolly
- 1 large silver metal adjustable dolly
- 1 ea Small Refrigerator
- 1 ea Microwave

### 12.2 SITE MANAGER OFFICE GFE FURNISHINGS

- 1 large desk
- 1 small metal book case
- 1 High back Upholstered Chair
- 1 fixed office chair
- 1 Telephone

### 12.3 HU-25A/HH-65A COMPUTER ROOM GFE FURNISHINGS

- 1 small rolling table
- 2 two computer desk units
- 1 large workbench with stool and vise
- 4 vidmar double door metal units
- 8 vidmar single door metal units (short)
- 2 six-foot wood ladders
- 1 large metal ladder with platform (6-foot)

- 2 three-foot metal ladders
- 1 two-foot metal step stool
- 1 THERN rolling crane unit
- 1 hazardous material spill response kit
- 1 small table
- 1 rolling tool box with misc. tools
- 2 enclosed visual rolling utility carts

NOTE: The formal inventory shall be taken during Mobilization.

13.0 JANITORIAL SCHEDULING REQUIREMENTS. See Technical Exhibit (7) for schedule.

## TECHNICAL EXHIBIT (2)

### TRAINER DESCRIPTION FOR DEVICE HH-60J

#### 1.0 DEVICE HH-60J OPERATIONAL FLIGHT TRAINER (OFT)

1.1 Function and General Description. The OFT was built by AAI/Systems Management Incorporated (SMI), under NAWCTSD contract N61339-90-C-0014 and was installed at the US Coast Guard Aviation Training Center, Mobile, AL in April, 1994. The NAWCTSD contract was placed for USCG Commandant (G-ASM) as part of the HH-60J Implementation Program. The trainer supports performance of flight sequence scenarios that simulate actual aircraft operations during Search and Rescue (SAR) missions, laws and treaties enforcement missions, and Maritime Patrol missions. Tactical training is provided for both basic and advanced helicopter tactics/selected exercises, standard operating procedures, instrument flights and post maintenance check flights. The trainer also supports emergency procedures training for both ground and flight operations and aircraft malfunctions training. The device consists of a cockpit assembly, instructor console, visual system, motion system, and computer cabinets.

1.2 Trainee Station. The Trainee Station simulates the cockpit arrangement for the HH-60J helicopter. It contains a high fidelity replication of the HH-60J instrument console, cockpit instruments, displays, panels, controls, aircrew seats and seatbelts, side windows, windshields, doors, and personal flight gear connections. The cockpit contains GFE such as the Automated Flight Control System (AFCS) digital computer, tactical data processors, copilot's Display Control Panel (DCP), pilot's and copilot's Control Display Units (CDUs), Multi-Function Display (MFD), pilot's and copilot's Horizontal Situation Video Displays (HSVDs) and HSVD system driver. Four Bose speakers mounted in the front and rear of the aircrew stations provide simulated aircraft system sounds by aural signals received from the aural cueing/communications system.

1.3 Instructor/Operator Station (IOS). The IOS consists of a console containing several storage areas, two color monitors, a trainer control panel, interconnect panel, keyboard, working surface, remote control, and an internal computer. The IOS provides the instructor with controls to initiate the training problem, introduce malfunctions and failures, monitor trainee actions and responses to malfunctions, and evaluate trainee performance. The IOS is located aft of the Aircrew Training Stations on the right side of the Trainee Station aft of the pilot's seat.

1.4 Control Station. N/A

1.5 Computer System(s) and Peripherals. See TECHNICAL EXHIBIT (6)

1.6 Aircraft Common Subsystem. N/A

1.7 Power System. See TECHNICAL EXHIBIT (6)

1.8 Visual/Video System(s). See TECHNICAL EXHIBIT (6)

1.9 Motion System. See TECHNICAL EXHIBIT (6)

1.10 Air Conditioning System. The air conditioning system for the Trainee Station is a 3-ton split condenser evaporator system using 20 feet of 14-inch flexible supply line to the main air plenum in the base frame to feed 10 separate duct outlets throughout the Trainee Station.

1.11 Motor Generator Sets. N/A

1.12 Hydraulic System. See TECHNICAL EXHIBIT (6)

1.13 Planned Modifications. See TECHNICAL EXHIBIT (8).

2.0 ILLUSTRATIONS. Not used.

3.0 MISSION.ESSENTIAL SUBSYSTEM MATRIX. Not Used.

4.0 CONTRACTED TRAINING TIME. See SOW.

## 5.0 AIRCRAFT COMMON EQUIPMENT/TRAINER PECULIAR EQUIPMENT

### 5.1 Aircraft Common Equipment

<u>PART NUMBER</u>	<u>NOMENCLATURE</u>	<u>S/N</u>
70600-81857-104	CDU	QHK00109
70600-81857-104	CDU	QHK00105
70600-81857-104	CDU	QHK00025
70600-01810-102	DAFCS	91081537
70600-81811-104	DCP	QHK00026
70600-81814-102	HSVD	QHK00023
70600-81814-102	HSVD	QHK00131
70600-81801-105	HSVD DRIVER	QHK00048
70600-81812-106	MFD	QHK00051
70600-81812-106	MFD	QHK00041
70600-81803-101	TDP	QHK00065
70600-81803-105	TDP #1	QHK00033
70600-81803-101	TDP #2	QHK00101
457400ZA1502	VSI	501
457400ZA1502	VSI	515
950060-10150	TCAS CONTROL	1047
5921000001	Interface Receptacle Unit	62736A
5923000000	Program data Transfer Module	06368
70600-81813-101	Multifunction DSPL Unit MT	NA

Note: This list is for preliminary inventory information only! A formal and complete inventory shall be taken during mobilization.

## 5.2 Trainer Peculiar Equipment. N/A

## 6.0 TOOLS AND SUPPORT EQUIPMENT

<u>PART NO.</u>	<u>NOMENCLATURE</u>	<u>QTY</u>
305183	EXTRACTOR	1
A20557-47	HAND WRAP TOOL	1
505084	UNWRAPPING TOOL	1
545A	LOGIC PROBE	1
9078/J658095	WRIST BAND, STATIC	1
9317	DEGAUSSING TOOL	1
24458	OSCILLOSCOPE	1
K212	OSCILLOSCOPE CART	1
P6009	PROBE, 100x O-SCOPE	1
P6015A	PROBE, 1000x O-SCOPE	1
PH-1200	HEAT GUN	1
51309	ADAPTER POINT	1
A170-HG	ADAPTER BAFFLE	1
77-II	MULTIMETER	1
80K-40	PROBE, HV MULTIMETER	1
507100/0044515X00	SLEEVE ADAPTER	3
28000AC1/44F1795	WIRE WRAP TOOL (2 BITS/2 SLEEVES)	1
98-0798-0267-8	FLOOR MAT, ANTI-STATIC	4
507573	BIT WRAPPING	2
201D	CRIMPING TOOL DIE	1
201E	CRIMPING TOOL DIE	1
10-538988-20	REMOVAL TOOL	12
MS24256A-20	INSERTION TOOL	3
45-01	VOLTMETER	1
06-1877-04	CONTACT REMOVER	1
06-7852-01	CRIMPING TOOL	1

Note: This list is for preliminary inventory information only! Formal, complete inventory shall be taken during mobilization.

## 7.0 SPARE PARTS

<u>NOMENCLATURE</u>	<u>NSN</u>	<u>PART NO</u>	<u>LOC</u>
<u>QTY</u>			

The formal inventory shall be taken during Mobilization.

## 8.0 TECHNICAL DATA SUPPORT PACKAGE (TDSP)

Preliminary inventory will be available on-site during the Pre-proposal Site Survey Conference. The formal inventory shall be taken during Mobilization.

## 9.0 SOFTWARE SUPPORT MATERIALS

Preliminary inventory will be available on-site during the Pre-proposal Site Survey Conference. The formal inventory shall be taken during Mobilization.

## 10.0 PARTIAL MISSION CAPABILITY STANDARD. See SOW.

## 11.0 FLOOR PLANS AND PROJECTED ADDITIONS. Not used.

## 12.0 OFFICE EQUIPMENT FURNISHINGS

Maintenance Room:	4 ea Desk
	3 ea 2-Drawer Filing Cabinets
	3 ea Large Wood Book Shelves
	2 ea Metal Cabinets
	1 ea 5-Shelf Metal Shelving
	1 ea 4-Shelf Metal Shelving
	4 ea Work Tables
	4 ea Office Chairs w/rollers
	1 ea Workbench
	7 ea Vidmar Storage Cabinets (tall) w/top shelves
	1 ea Cork Bulletin Board
	1 ea Dry Erase Board
	1 ea Wall Clock
	2 ea Telephone
Computer Room:	1 ea Short Metal Bookshelf
	2 ea 5 Drawer Filing Cabinets
	4 ea Work Tables
	2 ea Metal Cabinets
	2 ea Rolling Office Chairs
	1 ea Telephone
	1 ea Wall Clock
	3 Folding Tables
	1 Large Wood Bookcase
	1 ea All Purpose Rolling Utility Cart
	1 ea Enclosed Visual Utility Cart
	1 ea Enclosed Motion/Control loading Utility Cart
High Bay:	1 ea Workbench



- 4 ea Vidmar Single Door Storage Cabinet (short)
- 2 ea Vidmar Double Door Storage Cabinets
- 1 ea Large Flammable Storage Locker
- 1 ea Rolling Metal Cabinet
- 1 ea 3 section locker unit
- 1 ea DataBank Media Safe
- 1 ea Work Table
- 4 ea Office Chairs (Rolling)
- 1 ea Podium
- 1 ea Helmet Storage Shelving
- 1 ea Telephone
- 1 ea Cork Bulletin Board
- 1 ea Dry Erase Board

Note: This list is for preliminary inventory information only! Formal inventory shall be taken during mobilization.

13.0 JANITORIAL SCHEDULING REQUIREMENTS. See Technical Exhibit (7) for schedule.

### TECHNICAL EXHIBIT (3)

#### TRAINER DESCRIPTION FOR DEVICE HH-60J/HH-65B RECONFIGURABLE COCKPIT PROCEDURES TRAINER (RCPT)

##### 1.0 DEVICE HH-60J/HH-65B RE-CONFIGURABLE COCKPIT PROCEDURES TRAINER (RCPT)

1.2 1.1. Function and General Description. The purpose of the RCPT is to provide training in cockpit familiarity, basic and advanced cockpit procedures, aircraft system, malfunction identification and troubleshooting, and avionics system familiarization and operation. The RCPT replicates the aircraft cockpits of both the Sikorsky HH-60J Jayhawk and the Eurocopter HH-65B Dolphin. This device consists of replicated aircraft seats as well flight control loading with as cyclic and collective at the pilot and co-pilot station to further enhance the fidelity of the device. These flight controls provide the pilot with control placement, tactile feel, and range of motion cues. The various switches on each of the flight control grips are actively monitored by the flight simulation and provide input to the flight simulation computer for accurate system modeling and behavior. Designed to be quickly re-configured between aircraft types, these grips can be easily removed and replaced with the type appropriate for the aircraft configuration being simulated. The training device includes 9 commercially available Liquid Crystal Display (LCD) touchscreens, which are used to display the photo-realistic, animated instruments and provide the man/machine interface for the flight crew. The core of the RCPT flight simulation is the reuse of both the HH-65 and HH-60 software baselines from the full-flight OFTs. This device was constructed by Aero Simulation, Inc. under contract DTCG38-03-C-S00001 and was installed at the US Coast Guard Aviation Training Center, Mobile, AL in April 2004.

1.3 Trainee Station. The aural cue system for the RCPT simulation was provided by Advanced Simulation Technology, inc. (ASTi). The system implements a wide range of audio cues using the same high-quality generation system and software as found on many other full-flight trainers. Environmental sound cues are faithfully reproduced by the ASTi computer system and played through a set of speakers mounted in the front of the RCPT baseframe. The crew is subjected to the various environmental sounds associated with engine and main rotor operation and associated malfunctions. Avionics, warning, and navigational tones normally heard through the crew ICS system are played back through an independent speaker at the rear of the cockpit.

Realism, as displayed on the touch screens, is assured by the accurate duplication of dimensions as well as the location and appearance of all items.

1.3 Instructor/Operator Station (IOS). The IOS platform is based on the proven and accepted IOS from the OFTs. Scaled down slightly from the OFT implementation, the RCPT IOS uses a single LCD monitor instead of the typical dual screen configuration. The controls, menu arrangement and placement, and functionality of the RCPT IOS is identical to that on the OFT which significantly reduces the need for instructor cross-training for the different devices. Additionally, the IOS is mounted on a moveable pedestal-type table so the instructor can position

himself in the most optimum location around the device to observe and direct student activity. It also uses a wireless keyboard and mouse so that trainees can easily exercise the IOS controls for training on the device without requiring a dedicated instructor to be present.

- 1.4 Control Station. N/A
- 1.5 Computer System(s) and Peripherals. N/A
- 1.6 Aircraft Common Subsystem. N/A
- 1.7 Power System. The RCPT requires two, single-phase, 120 volt, 30-amp facility power.
- 1.8 Visual/Video System(s). Sony PFM 42" Plasma Monitors (X2)
- 1.9 Motion System. N/A
- 1.10 Air Conditioning System. N/A
- 1.11 Motor Generator Sets. N/A
- 1.12 Hydraulic System. N/A
- 1.13 Planned Modifications. Both restoration and upgrade modifications will be required to maintain standard configuration with the aircraft. The RCPT is currently undergoing a flight control loader upgrade.
- 2.0 ILLUSTRATIONS. None
- 3.0 MISSION ESSENTIAL SUBSYSTEM MATRIX. Not used.
- 4.0 CONTRACTED TRAINING TIME. See SOW.
- 5.0 AIRCRAFT COMMON EQUIPMENT/TRAINER PECULIAR EQUIPMENT. None.
- 6.0 TOOLS AND SUPPORT EQUIPMENT. None.
- 7.0 SPARE PARTS. None.
- 8.0 TECHNICAL DATA SUPPORT PACKAGE (TDSP). None.
- 9.0 SOFTWARE SUPPORT MATERIALS. None.
- 10.0 PARTIAL MISSION CAPABILITY STANDARD. None.
- 11.0 FLOOR PLANS AND PROJECTED ADDITIONS. Not used.

12.0 OFFICE EQUIPMENT FURNISHINGS. None.

12.1 DEVICE HH-60J/HH-65B MAINTENANCE SPACE GFE FURNISHINGS. None.

13.0 JANITORIAL SCHEDULING REQUIREMENTS. See Technical Exhibit (7) for schedule.

## TECHNICAL EXHIBIT (4)

### TRAINER DESCRIPTION FOR DEVICE MH-60T COCKPIT PROCEDURES TRAINER AND MH-60T CAAS DESKTOP PART-TASK TRAINERS

#### 1.0 DEVICE MH-60T COCKPIT PROCEDURES TRAINER

1.1. Function and General Description. The purpose of this trainer is to familiarize pilots with the cockpit arrangement; location of controls, indicators, and annunciators; and provide a realistic environment to learn/practice cockpit procedures. This device is a realistic mock-up of the MH-60T cockpit, consisting of the pilot seats, flight controls, aircraft instruments, and circuit breakers. The MH-60T CPT uses hardware designs from the VH-60N Engineering Development Tool (EDT) and the VH-60N Aircraft Procedure Trainer (APT), Device 2F181. The CPT will utilize the HH-60J OFT software load as a baseline and contain upgrades necessary to properly interface to the Common Avionics Architecture System (CAAS) equipment. The CPT provides training for a pilot and copilot utilizing active electric control loading for the primary flight controls, lower center console, main instrument panel, and overhead console. A trainer peculiar parts list is forthcoming.

The Common Avionics Architecture System (CAAS) Desktop Trainer is a PC-based software simulation of the CAAS OFP that uses two PC touch screen displays as multi-function displays. A canted console supports a simulated tactile Control Display Unit (CDU), Multi-function Key (MFK), and Communications Control Panel (LPCAP). Four units will be delivered by the end of FY08. The software is government owned. A commercial off-the-shelf CPU, keyboard, and mouse are included as part of the trainer. The CAAS desktop trainer is used to teach and reinforce functions and operating procedures.

1.2 Trainee Station. Controls, panels, and consoles are accurately replicated in a semi-enclosed mock-up located on a raised platform on wheels for mobility. Realism is assured by the accurate duplication of dimensions as well as the location and appearance of all items.

1.3 Instructor/Operator Station (IOS). The IOS platform is based on the proven and accepted IOS from the OFT's. The IOS uses dual LCD monitor configuration. The controls, menu arrangement and placement, and functionality are identical to that on the OFT which significantly reduces the need for instructor cross-training for the different devices.

1.4 Control Station. N/A

1.5 Computer System(s) and Peripherals. See Technical Exhibit (6)

1.6 Aircraft Common Subsystem. TBD

1.7 Power System. The CPT is powered by standard 120VAC, 3-phase, 60Hz. UPS protection.

1.8 Visual/Video System(s). XIG out the window, Cylindrical screen, NEC WT-610 projectors.

1.9 Motion System. N/A

1.10 Air Conditioning System. Facility maintained.

1.11 Motor Generator Sets. N/A

1.12 Hydraulic System. N/A

1.13 Planned Modifications. CPT will be decommissioned and used to upgrade the HH-60J OFT in the 2013 timeframe.

2.0 ILLUSTRATIONS. None

3.0 MISSION ESSENTIAL SUBSYSTEM MATRIX. Not used.

4.0 CONTRACTED TRAINING TIME. See SOW.

5.0 AIRCRAFT COMMON EQUIPMENT/TRAINER PECULIAR EQUIPMENT:

ICS Low Profile Audio Control Panel	599-1200-003
MFD-0268C3 Displays	822-1796-001
CDU-7000 Control Display Units	822-1729-003
GPPU PSM 8600	822-1850-001
GPPU VPM 8600A	822-2017-001
Interactive Hand Control (Left)	218-1239-010
Interactive Hand Control (Right)	218-1239-020
DAVATRON Clock	M8880A
Multi-Function Key Panel	822-1157-001

6.0 TOOLS AND SUPPORT EQUIPMENT None.

7.0 SPARE PARTS TBD.

8.0 TECHNICAL DATA SUPPORT PACKAGE (TDSP) Preliminary inventory will be available on-site during the Pre-proposal Site Survey Conference. The formal inventory shall be taken during Mobilization.

9.0 SOFTWARE SUPPORT MATERIALS Preliminary inventory will be available on-site during the Pre-proposal Site Survey Conference. The formal inventory shall be taken during Mobilization.

10.0 PARTIAL MISSION CAPABILITY STANDARD. See SOW.

11.0 FLOOR PLANS AND PROJECTED ADDITIONS. None.

12.0 OFFICE EQUIPMENT FURNISHINGS None.

12.1 DEVICE/MAINTENANCE SPACE GFE FURNISHINGS None

13.0 JANITORIAL SCHEDULING REQUIREMENTS. See Technical Exhibit (7) for schedule.

## TECHNICAL EXHIBIT (5)

### CASPER SENSOR TRAINER

#### 1.0 CASPER SENSOR TRAINER

1.1. Function and General Description. The CASPER Sensor Trainer is not slated for delivery until October 2008. The trainer is designed to simulate the acquisition, tracking, and engagement of surface and air targets. Correlated databases in the trainer support training at each of the five positions in terms of crew coordination, sensor manipulation, and coordinated weapons employment.

The training device provides training for the five-aircrew stations primarily responsible for performing the Sensor operator mission: Flight, Tactical Coordinator (TACCO), Navigator/Communicator (NAV/COM), Sensor Station 3 (SS-3), and the AN/AVX-1 Electro-optical Sensor System (EOSS).

The device consists of the following equipment:

- 1 AN SGI Onyx 3200 computer consisting of eight R12000 Central Processing Units serve as:
  - Simulation host
  - Image generator
  - Central control system.
  
- 2 Four PC workstations that are used to provide displays and accept input from the students.
  - Microsoft NT Operating System
  - ISA and 8 PCI slots
  - Dual Intel 200MHz Pentium Pro Processors
  - 128 Mbyte RAM
  - 1.6 Gbyte IDE hard drive in removable shuttle
  - Floppy Disk drive
  - ATI Xpert @ Work - 8Mbytes
  - 12X IDE CD drive caddyless
  - Ethernet 10/100 Mbit
  - Four Video Capture cards
  - RS-485 interface for PEP
  - VGA amplifier and switch for instructor station repeaters
  - Color High Resolution Display
  - Trackballs and Keyboard
  
- 3 VX-1 Display/Monitor Group (DMG SVDC PC @ SS-3 station) and Digital Camera System (DCS SVDC PC @ the flight station)



- Microsoft NT Operating System
  - 4 ISA and 4 PCI slots
  - Intel 300MHz Pentium II Processor
  - 128 Mbyte RAM
  - 1.6 Gbyte IDE hard drive in removable shuttle
  - Floppy Disk drive
  - ATI Xpert @ Work - 8Mbytes
  - 12X IDE CD drive caddyless
  - Ethernet 10/100 Mbit
  - One Video Capture Card
  - x 16 RS-170 video switch
  - Color High Resolution Display for flight station
  - DEP for flight station
- 4 An SGI O2 peripheral processor for ESM and radar (APS-137) control indicator simulation,
  - 5 Two SGI O2 workstations controlling the IOS functions and displays,
  - 6 An SGI O2 workstation to provide video recording of the Tactical Situation Display (TSD).
  - 7 Simulation/Stimulation of the OASIS III Tactical Data Processor (TDP)
  - 8 An MIO system provides for the transmission of interface and other data from the host computer to the MIO cards consisting of:
    1. a host computer
      - a. A Systran board responsible for transmitting linkage I/O to the MIOC
    2. MIO controller (MIOC)
      - a. A single board computer (SBC) that resides in the VME chassis and is responsible for servicing the linkage cards.
    3. linkage cards comprised of:
      - a. Universal Motherboard I/O with daughter-board modules.
      - b. daughter-board modules interface the MIO to the student and IOS remote panels, displays, and audio equipment.
    4. The MIO drive contains SECRET level classification materials and is necessary to operate the trainer.
  9. The trainer will be located in the basement of building S-55 (formerly the avionics building) adjacent to the FTS building.

# FTS Configuration

	HH-65C Dauphin	HU-25A Guardian	HH-60J JayHawk	RCPT	MH-60T CPT
Delivered Date	April 1985	March 1985	April 1994	February 2004	Jul 2007
Lastest Upgrade	Oct 2007	Sept 2006	Sept 2005	April 2004	
Host Computer					
Hardware	PC (1)	PC (1)	PC (1)	PC (3)	PC (4)
Operating System	Linux 7.0 - Guinness	Redhat Linux 7.0 - Guinness	Redhat Linux 7.2 - Enigma	Redhat Linux 8.0 - Psyche	Fedora Core 4
Programing Language	FORTRAN, ADA, C	FORTRAN, ADA, C	Ada, C	FORTRAN, ADA, C	ADA, C
Visual System				Virtual Cockpit	
Hardware	Eight PC Based (2)	Three PC Based(2)	Five PC Based (2)	PC (5)	Three PC Based(2)
Operating System	Win XP	Win XP	Win XP	Win 2000	Win XP
Software	Alion CATI XIG	Alion CATI XIG	Alion CATI XIG	GL Studio	Alion CATI XIG
Geometric Correction	n/a	n/a	Seos Mercator	n/a	Silicon Optix Image Anyplace
Monitor / projector	Seos 1410 DPM	Redifun D26 26 inch CRT.	Seos 918	SAW Touch Screen	Viewsonic PJ551
Display	WAC – Zero gap Mirrors	WAC	Dome - Screen		Cylindrical Screen
Input / Output	VMIC	VMIC	VMIC	N/A	VMIC
Environmental Sounds / Communications	ASTi –DACS-PC based, DOS 6.2	ASTi - DACS PC based, DOS 6.2	ASTi – DACS PC based, DOS 6.2	ASTi – DACS PC based, DOS 6.2 (comms = na )	ASTi – DACS PC based, DOS 6.2
Motion	Singer-Link 6 DOF	Singer-Link 6 DOF	Rexroth/Hydradyne 6 DOF	None	none
Control Loading	FCS Ecol 8000 PC based VxWorks	Sperry Hardware based analog system	FCS (Fokker) Hardware based analog system	FCS Ecol PC based VxWorks	FCS Ecol PC based VxWorks
Hydraulic Power	Singer (6)	Singer (6)	Hydradyne(7)	None	none
400 Cycle Generator	Motor - Generator	Motor - Generator	Solid State	None	Solid State
UPS	Liebert AP341 3phase 208V 30 KVA 24KW	Liebert AP341 3phase 208V 30 KVA 24KW	Liebert AP376 3phase 208V 100KVA 80KW	APC 3000	APC 1500
Instructor Operator Station					
Hardware	PC	PC	PC	PC	PC
Operating System	Microsoft Win XP	Microsoft Win XP	Microsoft Win XP	Microsoft Win2k	Microsoft Win XP
	Visual C++, Reflective Memory	Visual C++, Reflective Memory	Visual C++, Reflective Memory	Visual C++, Reflective Memory	Visual C++
Weather Radar	Blue Ridge Simulation(8)	(PC based storm scope )	Blue Ridge Simulation(8)	None	None
Computer Aided Debrief	PC based Win XP	PC based Win2000	PC based Win2000	None	None
MH-60T Moving Map Server					PC based Fedora Core 6 / Apache HTTP Server
Classroom Desktop					Desktop Trainer - PC Based with Peripherals (9)

## NOTES:

1 OFT Hosts	Dual PIII, Single Board Computer w/ dual 10/100 Ethernet, 20 Slot Passive Backplane, 512 MB SDRAM PC133, 36GB SCSI HD, IDE CD/RW, 3.5 Floppy, 10/100 Ethernet PCI card, ARINC 429 card, MIL-STD-1553 card, Reflective Memory Card, 40GB 4mm DAT Tape Drive
2 Visual	Dual AMD Opteron 2.8 GHZ, 2GB, 120GB Hard Drive, Nvidia 7800 Ultra GeForce 4. RPA genlock. Gefen DVI detective.
3 RCPT Host	Dual Xeon 2.8 GHz CPU card, VMIC-5579 fiber-optic reflective memory, dual gigabit Ethernet connections, dual USB connections, SVGA video card, Plextor CD-RW drive, removable 80GB hard drive, 3.5" floppy disk drive, and dual hot-swappable power supplies
4 60T CPT Host	Dual Xeon 2.8 GHz processors, 2 GB DDR2 SDRAM, On-board ATI RageXL graphics, Western Digital 36.7 GB SATA hard drive, Plextor PX-760A DVD±R/R/W CD-R/RW drive, VMIC VMIPCI-5565 Reflective Memory card, Condor Engineering CEI-520 Arinc card, Condor Engineering PCI-1553-MM Mil-Std-1553 card, Quatech QSE-400D Ethernet to RS-232/RS-422/RS-485 adapter
5 RCPT Virtual Instruments	Pentium 4 2.8 GHz CPU card, gigabit and 10/100 Ethernet connections, Adaptec 5-port USB adapter, two PNY Technologies Verto GeForce FX dual-head video cards, Plextor CD-RW drive, removable 80 GB hard drive, and 3.5" floppy disk drive
6 Link	The Hydraulic System includes a motor/pump unit, recirculating pump unit, reservoir accumulator, heat exchanger, starting equipment, and miscellaneous control valving and limit detection devices. Refer to the TDSP, Maintenance Book G-9, Motion System for HU and HH.
7 Hydradyne	The Hydraulic Power Unit located in the pump room is comprised of an 800-gallon tank, two variable flow piston-type main pumps, an oil cooling pump and filter circuit pump, a variable flow piston-type auxiliary pump, an air-to-air heat exchanger, and a monitoring panel.
8 Wx RADAR	Blue Ridge Simulation Radar System Simulation – PC based, PIII, Dual video: VGA, , Linux OS w/ RT extensions, C. HH-65B - RS-330 Radar Imagery channel HH-60J - RS-170 Radar Imagery channel  Linux 7.0 Guinness
9 MH-60T Desktop Trainer	PC based Windows system (Win 2000 or XP). System is a PC with two touch screens, one simulated Control Display Unit, one simulated Multifunction Knob and one simulated ICS control panel. Multifunction Display and the remainder of system is simulated in software.

**TECHNICAL EXHIBIT (7)****JANITORIAL SCHEDULING REQUIREMENTS****1. SIMULATOR BAY TASKS TO BE PERFORMED**

- A. Clean Up Any Hydraulic fluid Spills.
- B. Sweep Floor.
- C. Clean All Windows In Simulator Room.
- D. Dust Room Including All Ledges, Window Sills, Railings, Cabinets, Cabinet Tops, Electrical And Electronic Equipment Including Tops, Emergency Lighting, Power Panels, Warning Lights, Indicators, etc..
- E. Dust and Sweep Stairs, Ladders, and Ramps to Each Simulator.
- F. Wash Down Large Doors.
- G. Empty All Trash Cans and Replace Trash Can Liners.
- H. Touch Up Paint on Trainers.

**TO BE PERFORMED  
(FREQUENCY)**

Daily  
Weekly  
Monthly

Monthly

Monthly  
Quarterly  
Daily  
As Req'd

**COMPUTER ROOMS TASKS:**

- A. Sweep or Vacuum Floors.
- B. Damp Mop Flooring and Remove Any Heel or Scuff Marks or Other Marking.
- C. Empty All Trash Cans and Replace Trash Can Liners.
- D. Clean All Windows.
- E. Dust Room Including All Ledges, Window Sills, Cabinets, Table Tops, Electrical and Electronic Equipment Including Tops, Emergency Lights, Warning Indicators and Devices, etc..

**TO BE PERFORMED  
(FREQUENCY)**

Weekly

Monthly  
Daily  
Monthly

Monthly

**HYDRAULIC ROOM TASKS:**

- A. Clean Up Any hydraulic fluid Spills or Leaks.
- B. Sweep Floor.
- C. Dust Room Including All Shelves, Cabinets Including Tops, Lighting, Ledges, Doors, Electrical and Electronic Equipment, Hydraulic Equipment, etc..
- D. Clean or Replace Ventilation Grates/Filters.
- E. Mount/Dismount HH-60J Plywood Louver Covers.

**TO BE PERFORMED  
(FREQUENCY)**

Daily  
Monthly

Semi-annually  
Monthly  
Seasonally

## TECHNICAL EXHIBIT (8)

### MODIFICATION TASK LIST

1.0 Task Lists. The following tasks are trainer improvements the U.S. Coast Guard is considering for the future. The Government will provide the contractor with change/modification directive(s) for the tasks. Contractor shall install approved trainer modifications as directed by each Government approved change/modification directives and Section 5.5 of this SOW. A current list of Deficiency Reports will be made available during a pre-solicitation conference.

#### 1.1 HU-25A OFT.

- a. Engine Anti-ice valve fails EP does not work properly. Red fail light & BLD AIR cap light is correct; But when the airframe anti-ice is turned on, green airframe anti-ice light should come on.
- b. PLT & CP CCD locked up host intermittently during flight.
  - a.

#### 1.2 HH-65C OFT.

- a. OEI HI usage malfunction (106L/106R ) does not work. (FADEC modeling)
- b. During N1 divergence EP, OEI page came up on FLI but no OEI setting displayed (FADEC modeling)
- c. When 30 second OEI counter turns solid red, it should latch and remain illuminated regardless of power setting, it is extinguishing when power is reduced below the 30 second range (FADEC modeling).
- d. VEMD top Malf (132L ) gives a minor FADEC failure vice VEMD fail (FADEC modeling)  
Rotor brake start indicator is ON all the time, interferes with NVG  
Clock too bright for NVG
- e. When fog is on ceilings go away, vis was set to zero but could still see outside.
- f. Integrate synchronous time of day overhead lighting in the cockpit
  - a.

#### 1.3 HH-60J OFT.

- a. In Alaska database, Shelter island is not on the radar picture when headed north.
- b. Engine Alternator Failure malfunction (503L & 503R) not simulated correctly. Respective ENG OUT light does not illuminate.

- c. #1 engine started w/ crossbleed air from #2 when #2 NG was not above 90%.
- d. Rotors at 100% even with PCL & FSL off on the visual display.

#### 1.4 VISUAL/VISUAL DATABASE

- a. Adjust red flare timing and sequencing
- b. Search light causes visual exceptions when in Alaska at night

## TECHNICAL EXHIBIT (9)

### CONTRACT DATA REQUIREMENTS (CDRL)

1. General. The Contractor shall be responsible for submitting the following DD-1423 CDRL list and any other specific CDRL, which may be required in a subsequent Government, Approved modification change directive.

- a. IMOMS Progress, status, Management, and Utilization Report.

- b. Modification Change Directive.

- 1.1 CDRL's Not Found. CDRL requirements not specifically addressed in this technical exhibit for items requested in the SOW shall meet the same requirements listed in the original contract under the same or similar DD-1423 Block (2) titles for the following item categories:

- a. Category A: Engineering

- b. Category B: Administrative

- c. Category C: Provisioning

- d. Category D: Management

- e. Category E: Documentation

- 1.2 Other. The Contractor shall request clarification from the COTR on any other item CDRL requirements.

#### 3. CDRLs List:

<u>TYPE</u>	<u>DATA ITEM</u>	<u>TITLE</u>
ENGINEERING	A001	Computer Software Product End Item
	A002	Revisions & Updates to TTPRR
	A003	Engineering Drawings
	A004	Engineering Change Proposal
	A005	Configuration Audit Summary
	A006	Installation, Integration and test Plan
ADMINISTRATION	B001	Mobilization Plan
	B002	Mobilization Report
	B003	Monthly Status Report
	B004	Conference Agenda

	B005	Conference Minutes
	B006	Quality Systems Plan (Contractor)
	B007	Employee List
	B008	Warranty Report
PROVISIONING	C001	Interim Support Items List
	C002	Inventory/Utilization Data Report
	C003	Contractor Furnished Equipment
	C004	Provisioning Parts List (PPL)
MANAGEMENT	D001	Configuration Management Plan
DOCUMENTATION	E001	Commercial Off The Shelf (COTS)
	E002	Software Product Specification
	E003	Trainer Facilities Report
	E004	Operations and Maintenance Manual
	E005	Operating Instructions
	E006	Computer Systems Operating Manual (CSOM)
	E007	Trainer Considerations Report
	E008	Wire List
	E009	Parts List
	E010	Maintenance Requirements Cards (MRC)
	E011	Instructor Utilization Handbook (IUH)



## TECHNICAL EXHIBIT (10)

### PERFORMANCE REQUIREMENTS SUMMARY (PRS)

- 1.1 General. The following paragraphs cover the performance standards, and other direction, for significant services that the Government considers most critical to satisfactory contract performance. These performance standards are contract requirements that apply to each service task listed below. The contractor shall perform all service requirements stated in the contract work statement, whether or not the attached tables show a performance value for them. The purpose of this section is to explain how contractor performance will be evaluated, when the Government will withhold or reduce payment, and how these calculations are computed.
- 1.2 Performance Requirements Summary: The Government may assess deductions for nonperformance for the following reasons:
- a. OFT availability below 95%.
  - b. Noncompliance with preventive maintenance schedules.
  - c. Delayed Engineering Support.
  - d. Failure to maintain Key Control.
  - e. Misuse of Government Telephones
- 1.3. OFT Availability. Although the primary task of this contract is to provide for modification efforts it is imperative that the trainers be kept in a fully operational status during contracted training time (CTT). Therefore, the goal of the Contractor shall be to keep the OFTs at 100% availability during CTT. Failure to achieve a minimum monthly availability of 95% for any individual OFT will result in deductions to the monthly invoice as described below.
- a. The Contractor shall have the simulator available and operationally ready for Government use from 0700-2300 daily, except weekends and Federal Holidays.
  - b. Availability will be measured monthly for each OFT as follows:

$$\text{Availability (\%)} = (\text{CTT} - (\text{CDT} + \text{PMCQ})) / \text{CTT}$$

CTT - Contracted Training Time

CDT - Chargeable Downtime

PMCQ - Partial Mission Capability Quantity

Step 1: Determine CDT. This is the portion of CTT in which the OFT was not available for training for reasons other than those designated non-chargeable as described in Section 2.1.3.

Step 2: Determine PMCQ. PMCQ is the PMCF (percent of degradation determined by the IP) multiplied by the PMCT (partial mission capability training time). PMCT is the portion of CTT in which the OFT was used in a degraded status or partially available to complete the scheduled training objective or alternate training mission. Example, IP determines the PMCF to be 10% for a 2 hour block. The calculation would be  $0.1 \times 2 = 0.2$  hours. PMCQ charged to the Contractor would be 0.2 hours. A single training period or block can have both CDT and PMCQ.

Step 3: Determine CTT. This is the total number of hours for each specific month in which the OFT is required to be fully operational for Government training. Each OFT's CTT can be normally calculated by counting the number of work days in the month and multiplying by 16 hours/day.

Step 4: Complete the calculation to get monthly availability for each OFT.

- a. If availability is 95% or greater, no deduction warranted.
- b. If availability is less than 95%, proceed with Step 5.

Step 5: Calculate the monthly deduction as follows:

- a. Maximum monthly NTE payment divided by CTT = Hourly Rate
- b. Hourly rate divided by three = Hourly Rate per OFT
- c. Hourly rate per OFT times the number of hours the OFT was unavailable (CDT + PMCQ), = OFT monthly deduction

#### 1.4 Noncompliance with Preventive Maintenance Schedules.

- a. Deduction for failure to comply with preventive maintenance will be calculated at a set deduction for each occurrence.
- b. The set deduction will be equal to the Hourly Rate per OFT as determined in Section 6.2 above.

#### 1.5 Delayed Engineering/Modification Support.

- a. The Contractor will be assessed with a deduction for delayed engineering/modification support when scheduled completion dates are exceeded by 30 calendar days and the Contractor has failed to provide written justifiable cause to the Government for such delay.
- b. The deduction amount for delayed engineering/modification support will be equal to the hourly rate (as determined in step 5a) times the number of work days for that month.

- 1.6 Failure to Maintain Key Control. If the Contractor fails to maintain positive key control to assigned maintenance spaces as outlined in Section 1.5.3, a deduction of the actual cost of re-keying or replacing the affected lock or locks will be made per occurrence with receipt provided to Contractor.
- 1.7 Misuse of Government Telephones. Misuse of Government telephone services provided by the Government shall not be tolerated. Any phone usage found unrelated to this contract shall be reimbursed to the Government by automatic deduction from the Contractor's monthly payment. The Government retains the right to monitor all incoming and outgoing calls when those calls are made on Government lines. \_

## TECHNICAL EXHIBIT (11)

### FORMS

Note: forms will be discussed and provided during the Mobilization Period